

## **Enclosure 2**

### **Statewide EAC Activities**

**June 30, 2006**

**D H E C**



**Enclosure 2**  
**South Carolina's 8-hour Ozone Early Action Compact**  
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A Notice of Drafting (NOD) was published in the South Carolina *State Register* on August 23, 2002, expressing our desire to pursue an early action plan that provides for ambient air in South Carolina that meets the more restrictive federal standard prior to the deadline(s). The NOD requested those interested in participating in an early action plan for ground-level ozone provide that interest in writing to the Department. Due to the timing of events and the requirements of the State's Administrative Procedures Act, a second drafting notice was published in the *State Register* on April 25, 2003, the purpose of which was to extend the comment period.

The South Carolina Department of Health and Environmental Control (Department) established a large stakeholder group consisting of federal, state and local government officials, environmental groups, citizens groups, business, industry and private citizens. On August 26, 2002, correspondence was issued to the stakeholders seeking active participation in the development of an Early Action Plan (EAP) regarding ground level ozone reduction in South Carolina and providing a list of informational forums scheduled throughout the state. Surveys were a part of the informational forum and included an opportunity for attendees to request active participation in the EAP process. Copies of sign-in sheets, meeting agendas, and survey forms were included as Attachment 4 of the June 2003 Progress Report.

Local stakeholder participation was obtained through the involvement of the county administrators and/or county councils. On November 12, 2002, the South Carolina Association of Counties issued correspondence to each county council chairman and county chief administrative officer stating support of each county's participation in South Carolina's 8-hour Ozone Early Action Compact (EAC). Also on November 12, 2002, DHEC issued correspondence to county administrators seeking active stakeholders for participating in the EAC. This correspondence included a working draft copy of the EAC. As a result, Department staff participated in numerous county council meetings and other discussions (telephone and electronic mail) with county officials seeking local participation in the EAP process. On December 12, 2002, Department staff presented at the yearly meeting of county administrators sponsored by the South Carolina Association of Counties. At the request of several counties and the Association of Counties, the Department again issued correspondence to the county's seeking participation.

On December 20, 2002, the Department submitted to EPA the Early Action Compacts received as of that date, signed by the respective local participant and DHEC representative, R. Lewis Shaw, Deputy Commissioner for Environmental Quality Control. On December 27, 2002 and again on December 31, 2002, DHEC submitted additional compacts received from local participants. As of December 31, 2002, forty-

five of the forty-six counties in South Carolina elected to become active stakeholders in the South Carolina Early Action process.

One condition set by EPA Region 4 for York, Chester, and Lancaster counties participation in the EAC, requires South Carolina continue to actively participate in the Charlotte Region Integrated Air Quality Management Pilot Project. This project has since been renamed “Sustainable Environment for Quality of Life” (SEQL). In addition to the milestones established in the Early Action Compact, South Carolina and North Carolina were required to develop a specific memorandum of understanding (MOU) detailing how this requirement will be met. On March 14, 2003, Mr. R. Lewis Shaw, Deputy Commissioner for Environmental Quality Control at the Department and Mr. William G. Ross, Jr., Secretary for the North Carolina Department of Environmental and Natural Resources signed the MOU, included as Attachment 8 of the June 2003 Progress Report.

The Department continues to be an active partner in the SEQL project. As a part of the SEQL project, the Catawba Council of Government (COG) partnered with the Department and other stakeholder groups to compile sample ordinance language, policies, best management practices (BMPs) and program guidance for the development and implementation of SEQL action items geared to the local governments within the SEQL project area. This information should prove helpful to local governments in their 8-hour ozone early action efforts. In December 2004, a CD with these documents was provided to all participating areas. The information is also available on the Department’s website.

South Carolina was not required to enter into a formal agreement with the state of Georgia in regards to emission reduction strategies for the Upper and Lower Savannah areas. However, representatives from the state of Georgia attended the Lower Savannah Council of Government meeting held on February 6, 2003. Representatives from EPA also attended this meeting. In addition, Department staff attended a meeting held on February 21, 2003, in Augusta, Georgia, with local and state government officials from Georgia and South Carolina and EPA to discuss the impact of the early action process and emission reduction strategies for that area.

The Department held a public meeting on the Early Action SIP submittal on August 18, 2004. The meeting was held in Columbia and broadcast around the state at local Department Environmental Quality Control offices to allow participation from all over the state. The Draft Early Action SIP was published in the State Register on October 22, 2004, and the public hearing was held on November 22, 2004. As deemed appropriate, based on comments presented during the public comment period, the Department finalized the Early Action SIP and submitted it to EPA on December 29, 2004. A complete copy of the submittal may be found at [http://www.scdhec.gov/eqc/baq/html/eap\\_sip.html](http://www.scdhec.gov/eqc/baq/html/eap_sip.html).

The modeling analysis completed as a part of the EAC SIP submittal demonstrates that all monitors in South Carolina will be attaining the 8-hour standard without the inclusion

of measures beyond the national and regional programs already finalized. The Protocol for Early Action Compacts endorsed by EPA states that “after all Federal and State controls that have been or will be implemented by December 31, 2007, are accounted for in the modeling, the local area will identify additional local controls, as necessary, to demonstrate attainment of the 8-hour ozone standard on or before December 31, 2007.”

While the early action process was developed to provide local areas the option to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than federally mandated by implementing emission reduction strategies that make sense for their respective area, South Carolina also realized that statewide emission reduction efforts would be necessary to achieve and maintain the 8-hour ozone standard.

Among the key control strategies that were developed as part of the EAC process, were revisions to state wide regulations for the purpose of providing additional reductions in ozone precursors. R.61-62.5 Standard 5.2, Control of Oxides of Nitrogen, and R.61-62.2, Prohibition of Open Burning, were published in the South Carolina *State Register* on June 25, 2004, and became effective upon publication. For more information on these regulations refer to Number 4 – Regulatory Initiatives of the State Activities for June 2006.

While information pertaining to the amount of NO<sub>x</sub> and VOC reductions that are expected as a result of these regulations is available, it is important to note that modeling indicates that all monitors will be attaining the 8-hour standard by 2007 even without these additional measures. However, the reductions from these regulations are quantifiable, permanent and will ensure that South Carolina obtains cleaner air sooner and helps ensure continued maintenance of the 8-hour ozone standard in the future.

Another significant control strategy that was developed through this process is the voluntary commitments that the Department has negotiated with several of the state’s largest existing industrial sources to reduce and/or limit their NO<sub>x</sub> emissions. These negotiations were the direct result of the EAC process as are the NO<sub>x</sub> reductions that will result from them. These voluntary commitments are described in more detail in Number 8 – Other Point Source Reductions of the State Activities for June 2006.

The Department believes that the sum of all these efforts will have a very real and positive impact on the health and environment of South Carolina. The EAC process has allowed the state of South Carolina to achieve reductions in ozone precursors from a variety of sources that otherwise would not have occurred and this was all done on a timeframe that was sooner than what would be required through the traditional nonattainment designation process. In addition, as a result of the local EAC plans and local efforts, awareness of air quality issues has been raised to a level that would not have been possible without the EAC process. People from around the state, who have never previously had any significant exposure to air quality issues, have participated in the EAC process and helped make decisions about improving air quality. This is perhaps, above all else, the reason why the South Carolina Wildlife Federation chose to honor the “SCDHEC Early Action Compact SIP” with their 2005 South Carolina Wildlife

Federation Air Conservation Award, an award that has only been bestowed six times since 1970 (see Appendix 15 of the SC EAC SIP).

Beginning with June 2003 to present, this report represents the seventh bi-annual progress report. In addition, local plans identified the emission reduction measures under consideration by the participating county. The South Carolina EAC SIP was submitted December 2004 and supplemental information to the EAC SIP was submitted on April 20, 2005. Each of these submittals contains information updating local and state measures supporting the EAC process and can be found on the Department's website (<http://www.scdhec.gov/eqc/baq/html/eap.html>).

This document includes highlights of activities in the deferred nonattainment areas as well as statewide activities.

**Ground-level Ozone Awareness Week** – The Governor of South Carolina declared May 1-7, 2006 as Ground-level Ozone Awareness Week. This is the 7<sup>th</sup> consecutive year this declaration has occurred.

**Commuting Options** – New Take a Break from the Exhaust participants for the 2006 Ground-level Ozone Season include:

The County of Lexington  
Central Midlands Council of Governments  
Winthrop University  
York Technical College  
Bowater – York County  
Citi Group – York County  
Springs Industries – York County.

**Legislation** - Members of the Upstate EAC counties (Anderson, Greenville, and Spartanburg) in coordination with the Palmetto State Clean Fuels Coalition and the South Carolina Chapter of the Sierra Club, supported statewide legislation that will provide tax incentives for purchase of alternative fuel and hybrid-propulsion vehicles and help reduce costs and provide tax credits for production and infrastructure for alternative fuels. On June 1, 2006, Governor Sanford signed an act to amend the Code of Laws of South Carolina, 1976, by adding Section 12-6-3377 so as to allow a state income tax credit equal to twenty percent of certain new hybrid, fuel cell, alternative fuel, or lean burn technology motor vehicle credits allowed against a taxpayer's federal income tax liability.

**Outreach Efforts** – Throughout the previous 6 months, information was sent to the EAC contacts including:

- Governor's Proclamation and the Departments news release for Ozone Awareness Week
- Information on national bike month and related activities
- Information of Car Care Awareness Month and related activities
- Information for National Air Quality Awareness Week (May 15 – 19, 2006)

- Earth Day 2006
- EnviroFlash
- 2006 Ground Level Ozone Season (April 1 – October 31)
- Ozone Action Tool – survey to assess and promote measures that reduce ozone.

**Outreach Efforts** - Car Care Awareness Month (April) – In recognition of Car Care Awareness Month, the Department and Richland and Lexington counties organized a vehicle maintenance check event in April. The State Museum, Ben Satcher Ford and Pope Davis Tires helped sponsor this free event on April 1, from 10 a.m. until 2 p.m. at the State Museum on Gervais Street. A team of certified technicians made suggestions for improving vehicle safety and gas mileage. The technicians also performed vehicle checks and raised citizens' awareness about how proper maintenance of a vehicle can help to reduce air pollution and protect the public's health.

**Mass Transit** - The Central Midlands Council of Governments (CMCOG) is taking on a planning study for commuter rail transit services in the Central Midlands region. It will examine three potential commuter lines from Batesburg-Leesville, Camden and Newberry into downtown Columbia. The CMCOG region being studied includes the counties of Richland, Lexington, Newberry and Fairfield. Three public meetings were held to present preliminary planning and receive public feedback. Feedback was also accepted by mail fax, website and email.

**School Busses** - The S.C. Department of Education announced a \$500,000 grant to help reduce school bus pollution. The state plans to replace a dozen 22 year old school buses, upgrade 132 other buses and convert 1,220 buses to B-20 fuel. Idle reduction devices will be installed on 200 buses.

**Southeast Diesel Collaborative** – The Southeast Diesel Collaborative is a new partnership between US EPA Region 4, State and local air quality programs, and other public and private entities and is intended to promote opportunities to reduce diesel emissions. The collaborative is modeled after other regional diesel collaboratives, which have proven beneficial for addressing a significant source of mobile source air pollution. On April 26, 2006, a Memorandum of Understanding (MOU) in support of the Southeast Diesel Collaborative was signed by Mr. William G. Gallardi, Assistant Bureau Chief, BAQ.

**Community Outreach** - The State of South Carolina agreed to conduct the project and submitted a request for funding which was included in their Performance Partnership Grant (PPG). Region 4 approved their request and awarded the funds (\$142,500) in the PPG for the community activities in Greenville. South Carolina has conducted four community meetings (10/27/05, 11/14/05, 12/05/05, and 01/09/06) to establish and start the Greenville project. The next meeting is scheduled for February 13, 2006. There are five communities or neighborhoods involved in the meetings and project (Greater Sullivan Community Neighborhood Association, Sterling Neighborhood Association, West End Neighborhood Association, Haynie-Sirrine Neighborhood Association, and the Green Avenue Area Civic Association). The participants have selected a name for

themselves – “Breathing for Life Community Coalition (BfLCC).” There is a good exchange of information and interaction between the participants at the meetings. This is due in large part to the organizational and community relationship skills of the State’s staff and the active participation of the residents, community liaisons and pastors in the communities. State staff participating are from Greenville’s environmental quality control and health department offices, the Bureau of Air Quality and EQC Administration.

While there is a wide range of possible projects which would include reducing toxic pollutants (e.g., diesel retrofits, indoor air quality projects), household hazardous waste reduction projects, anti-idling campaigns, integrated pest management programs, and or other projects from which the community can select, they have elected to start by having an essay, logo and drawing competition with the children in the five neighborhoods. The subject of the competition is “Breathing for Life – Your Health and the Environment.” In addition to this project, the community would like to hold an “educational forum” (date to be announced). The forum will highlight winners of the environmental essay, logo and drawing contest. It was suggested that a Region 4 representative, possibly Beverly Banister, be present at the forum. She is a champion of the project would be an inspiration to the children who would be participating. The long term purpose of BfLCC is to find funding to implement the selected projects and to establish a permanent, ongoing effort to continue reductions of toxics risks to the community.

The Air Toxics Assessment and Implementation Section is overseeing the performance under the PPG related to the effort for the Greenville Project. When BfLCC determines that they want or need the Region to actively participate, the Section will provide information, technical support, training, and risk analysis as requested. In addition, EPA Region 4 as a primary author of the "How To" manual that walk communities step by step through performing an environmental project, has provide information on the availability of this document so that it can be used when it is determined that the concepts and processes should be applied in this project.

Additional meetings that have been held are February 13, February 27, March 13, March 27, April 24 and May 22 and June 19. Extra meetings were held in February and March to plan for the education forum.

An educational forum was held on April 8, 2006. Winners of the essay and drawing contests were announced and presented their prizes. A logo is being developed for the Coalition as a result of the logo drawing contest. In addition, education was provided on asthma, weatherization and air pollution. Guest speakers were Carol Kemker from EPA and Miss Crystal Garrett, Miss Lexington, SC, who gave her testimony on how she has managed living with asthma. A community member gave the history of the BfLCC. A feedback questionnaire was used for evaluation of the event. Comments were very positive and the community would like to have more informative events like this.

Future projects that are being planned are a household hazardous waste collection day in conjunction with a gas can exchange and providing EPA-certified woodstoves in homes that are using old woodstoves. Preliminary discussions have taken place with a school

official about implementing school bus anti-idling programs in Greenville schools. Other partners that are helping with these projects are Greenville City and County officials.

**Department Activities** – The Department continues to leading by example:

- a. BAQ staff for the past few years have adopted a strip of lawn in front of the Sims/Aycock Department Headquarters building and use an electric mower for cutting. Working in coordination with the facilities maintenance staff from the State Budget and Control Board, cutting this area with a gas-powered mower is discontinued during the ground-level ozone forecast season. A fact sheet has been made and often distributed to customers who inquire about our activity. In addition a sign is placed in the area to convey the message of this lawn area being adopted by staff using an electric lawn mower.
- b. BAQ staff worked with the EAC contacts from Lexington County to create a sign that has been placed in front of the main Department Headquarters building to advertise the ground-level ozone forecast. Motorists traveling the busy corridor of Bull Street to I-277 are able to view the forecast sign each week day.
- c. Inter-bureau workgroup on open burning. Staff from the Department's Bureau of Land and Waste Management and Bureau of Air are collaborating on the development of training tools for staff to improve consistency in dealing with open burning issues around the state. This includes interpretation of the current Agency regulations for both bureaus, messages regarding alternatives to open burning and communication/coordination with other agencies that may have some involvement with open burning (e.g., SC Forestry Commission, Fire Marshalls, etc.). Also, another objective of this workgroup is the development of an awareness campaign to convey messages regarding open burning regulations and alternatives for disposal (e.g., recycling, composting, etc.). These messages will be tailored to specific audiences based on waste streams. The Bureau Chiefs for the BLWM and BAQ have been presented this outline and are going to help identify resources for implementing these objectives.
- d. Project Discovery - Working with the state Public Education Television (ETV) agency, staff from all EQC bureaus, including the BAQ worked to develop an information segment on various aspects of the environment. BAQ staff, along with region staff developed a script and message related to alternatives to open burning. This series of messages aired on May 5, 2006 and was broadcast to students in schools statewide over the ETV channel. Here is a part of the message communicated regarding this show:

**Project Discovery** - A special program to highlight how students can help take better care of our environment will be our May 2006 edition of Project Discovery. Presented from Hilton Head Island as part of the ETV Road Show, Project Discovery host Tabitha Lewis and co-host, Paula Randler of SC DHEC leads students on a behind-the-scenes view of the waste water treatment plant located there to see just how this important life-sustaining resource is cleaned and returned to the environment. In addition, students will learn about the importance of keeping a healthy coastline. Picking up after a day at the beach is more than just a beautification issue and something everyone can do to help. We'll also learn about the importance of recycling and how we can take better care of our



air by not burning trash. And, a trip to the landfill is also on tap to see where all that stuff we cannot recycle actually ends up.

Presented in cooperation with DHEC, this program is designed for grades 1-8 and our toll-free phone line (1.800.763.ETV1) will be open for calls from students during the program. Join Project Discovery for the last program for this school year and be more prepared to enjoy clean water and air this summer as we pay more attention to how we impact our world around us and how we can help keep it clean for all to enjoy and appreciate both today and in the future. Please alert your teachers to this special program and plan to tape it for your school

**Press Coverage** – Recent coverage includes:

- On March 25, 2005, WIS-TV in Columbia aired a feature story highlighting alternative fueled vehicles. The story specifically covered the actions that the Department and local government were taking to utilize alternative fuels.
- On Friday, April 15, 2005, The State newspaper wrote a story on one TABFTE partner and his decision to give up his car for a bike and public transportation. This generated interest in more bike and pedestrian paths and public transportation in the Columbia area.

## 1. Outreach and Education

Public involvement through education and outreach plays a major part in the success of an early action program whether it is a statewide program or a local program. The Air Education and Outreach Section is responsible for increasing awareness, educating, and encouraging behaviors for improving air quality among various segments of the population in South Carolina. As a result of the early action process, several fact sheets were updated and new fact sheets created. This information is available by contacting the office and is also available on the Department website ([www.scdhec.net/baq/eap.html](http://www.scdhec.net/baq/eap.html)). This information has been provided to local areas to assist in the local education and outreach efforts.

School aged youth have been targeted with programs such as the following:

- Ozone Action Class – An interactive program focusing on how to reduce ground-level ozone forming air pollution through the outreach efforts of local schools; and,
- B2 @ School (Breathe Better Air at School)- a project designed to involve students, their parents, teachers and administrators in assessing idling activity on school grounds, and determining mechanisms for reducing idling by vehicles and/or school buses. Mechanisms include awareness activities, policy support/development and tools such as no-idling signs.

Resource materials in place or that have been developed for public outreach include the following:

- “Driving Smarter for Tomorrow” brochure
- “Ozone Action Class” brochure
- “Care About Air” coloring book
- “Spare the Air” bookmark.

The “GreenScene Magazine” published by the Department’s EQC Outreach Committee, provides a one-stop shop of the environmental education programs offered by the Department. The first issue published in the fall of 2002, contained an article entitled “Ozone is Not Just Another Season.” This committee is responsible for numerous projects that promote environmental education, both internal and external to the Department. One of the projects is a series of monthly environmental e-mails sent to all Department staff. The May 2003 message was “Clean Air Month” and informed staff that Governor Sanford proclaimed May 1-7 as **Ozone Awareness Week**. A copy of the magazine, the message, and the proclamation have been included in a previous progress reports. Other activities include Earth Today Broadcast, Earth Camp, and, Kids Day events.

New graphics were introduced on the BAQ’s web site May 1, 2003. The existing ozone forecast web page was revised to reflect all four forecasted regions in South Carolina and color coded to align with EPA’s Air Quality Index. The new graphics makes the Air Quality Index easier to read and understand by the public who use this web site.

**Website** - One of the first outreach activities of the EAC process included the establishment of a website ([www.scdhec.net/baq/eap.html](http://www.scdhec.net/baq/eap.html)) for stakeholders to obtain updated information regarding the early action process. The website address was given in the initial press release (August 28, 2002) and continues to be included on correspondence and presentations.

**Ozone Events** – The Department has sponsored Ozone Awareness events to educate areas on the ozone standard, forecasting and measures that can be taken to reduce ground-level ozone. Following, is a schedule and summary of the 2003 Ozone Events:

April 26, 2003                      -              Central Savannah River Area

“Kids Earth Day” held on Saturday, April 26, 2003, was attended by approximately 1,000 children residing in the Aiken/North Augusta area. The Department’s Central Office and District Bureau of Air Quality (BAQ) staff assisted children in playing Air Jeopardy as well as leading them through an educational exhibit on ground-level ozone. Prizes were also distributed.

April 29, 2003                      -              Pee Dee Area

A community meeting was held at the Pee Dee Regional Council of Governments office in Florence. Various community members and media were invited to attend this meeting for an educational program on ground-level ozone and health implications due to ground-level ozone exposure. This event was well attended and received excellent media coverage.

May 1, 2003                         -              Central Midlands Area

A partnership with WACH 57 TV was formed with BAQ staff to promote the Bureau’s “Ozone Action Class.” This is a web-based program encouraging students to find solutions to reduce ground-level ozone pollution. Spears Street Elementary School in Newberry County was the first recognized Ozone Action Class by weatherman Cary Allen and BAQ staff member, Amy Curran. WACH 57 incorporated the day’s events, along with promoting Ozone Awareness Week, on their nightly weather segment that evening.

June 28, 2003                      -              Upstate

The BAQ and Recycling Office of the Bureau of Land and Waste Management partnered with the Upstate Air Quality Advisory Committee (Anderson, Greenville and Spartanburg Counties) to hold a gas can exchange event in this three county region. This was the first of a kind event for South Carolina. As well as new environmentally friendly gas cans, educational materials were distributed. Results of the Gas Can Exchange Event are included with the individual county reports.

**Public Presentations** - Numerous public presentations by Department staff regarding the 8-hour ozone standard and the early action process have been held. Since the process

started there have been over 75 meetings in which Department staff promoted the benefits of the EAC process.

**Greenscapes** – The Department partnered with the South Carolina State Budget and Control Board's (B&CB) Horticulture services to implement a tree planting and environmental landscape project at the Department's central office and to conduct workshops on environmental benefits of trees for representatives of local and state government agencies. Funding for this effort was through a grant from the Urban and community Forestry Grant Assistance program administered through the South Carolina Forestry Commission and funded by the USDA Forest Service. Planting trees and reducing grass area results in less lawn mowing which helps reduce the emission of NO<sub>x</sub> and VOC from gas powered equipment. For example, this project decreased the mowing area by 39 percent (original turf area was 24,816 sq. ft.; new mulch area 9,684 sq. ft., new turf area 15,132 sq. ft.). The time to mow this area has been cut in half, to less than 45 minutes.

To assist in promoting the incorporation of landscape planning to support the health of the environment, each EAC contact was invited to attend a presentation on May 25, 2005, to be provided by David J. Nowak, Ph.D. Dr. Nowak is a Project Leader with the USDA Forest Service, Northeastern Research Station in Syracuse, NY. Dr. Nowak is a principal scientist on the Chicago Urban Forest Climate Project and is a recipient of the American Forests Urban Forest Medal recognizing outstanding national contributions in urban forest research and the Distinguished Science Award of the Northeastern Research Station. His presentation is designed to provide an understanding of urban forests and their benefits and regulatory effects related to air and water quality.

#### **a. Ozone forecast/outreach, education**

The Department began forecasting for the 8-hour Ozone standard in 1998 for the Upstate and Central Midlands areas of South Carolina. In 1999, the Central Savannah River area was added in the forecast and in 2003 the Pee Dee area was added. The Catawba area, including Chester, Lancaster and York counties is included in North Carolina's forecast through a cooperative partnership. A link for the Catawba forecast is included on the Department's website. The forecast serves as a public health advisory to protect those persons who are most at risk to the effects of ozone.

Prior to 2006, the Division of Air Planning, Development and Outreach was responsible for disseminating the ozone forecast to interested individuals and groups across the state.

Most counties participating in the EAC have assigned an air quality contact person that receives the daily forecast and is responsible for disseminating the Ozone forecasts and related information on Ozone Action Days to stakeholders.

The Department and the SC Department of Transportation (DOT) have an agreement during the ground level ozone season. When an Ozone Awareness Day is forecasted in a

particular region, Department staff contact DOT staff to activate the DOT Intelligent Transportation System (ITS) message board in the affected area. The ITS boards alert drivers that an Ozone Awareness Day has been forecasted for the next day and provides drivers with options and suggestion on how to deal with the upcoming Ozone Awareness Day. The Department's website is also included as a part of the message.

In 2004, the Department established a toll free telephone line for persons to call and receive the ground-level ozone forecast for the four areas of the state involved. Listed here is the number of calls for this "Ozone Hotline" for 2004 – 2006.

2004: 45 (only 3 months)

2005: 197

2006: 10 (thru May, 2006)

The number of contacts for the e-mail distribution for the 2005 ground-level ozone season was over 130 contacts.

Beginning with the 2006 ground-level ozone forecast season, the Department and the Bureau of Air Quality began participation in a new program that will make getting the forecast easier and more reliable. **EnviroFlash** is a program, sponsored by the EPA with State and local air quality agencies. **EnviroFlash** provides important air quality information such as forecasts and action day notifications via email or pager notification. The email includes the same local air quality forecast information which is coordinated through the news media, like television and radio.

**EnviroFlash** provides instant information that may be customized for individual needs. Subscribers can choose to receive the forecast everyday or only on forecasted Ozone Action Days. Air quality information allows subscribers to adjust lifestyle activities when necessary on unhealthy air quality days.

Participants in the BAQ's forecast system, were provided information to an on-line subscription page and requested users to sign up, edit the reported information, or cancel the service. Subscribers are able to choose the type and frequency of service desired, **EnviroFlash** will be sent to your email or pager as soon as the ground level forecast is made. Persons are able to select from the Central Midlands, Upstate, Central Savannah River, or Pee Dee area. Subscribers to this free service may also receive the forecast for all four regions. See below for **EnviroFlash** subscriber statistics for each zone. This information is split into categories, whereby "Green" level subscribers receive forecasts every day, "Yellow" level subscribers receive forecasts for "Yellow" forecasts and higher, etc.:

#### **Midlands - 81 subscribers**

"Green" Level Subscribers: 12

"Yellow" Level Subscribers: 16

"Orange" Level Subscribers: 53

**Upstate - 81 subscribers**

"Green" Level Subscribers: 16  
"Yellow" Level Subscribers: 11  
"Orange" Level Subscribers: 51  
"Red" Level Subscribers: 2  
"Maroon" Level Subscribers: 1

**CSRA - 19 subscribers**

"Green" Level Subscribers: 5  
"Yellow" Level Subscribers: 2  
"Orange" Level Subscribers: 12

**Pee Dee - 12 subscribers**

"Green" Level Subscribers: 5  
"Yellow" Level Subscribers: 0  
"Orange" Level Subscribers: 7

The total number of subscribers, 193, may reflect more than just individuals receiving the forecast. Some subscribers may forward the email **EnviroFlash** delivers, to other employees at a worksite. The forecast may be utilized by local meteorologists to share with their TV audiences.

**2006 Ozone Awareness Proclamation**

For the seventh year in a row, the governor of South Carolina has signed a proclamation regarding ground-level ozone awareness week. This year, Governor Sanford signed a proclamation declaring May 1-7, 2006, as "Ozone Awareness Week." A news release was developed to help announce this proclamation and was distributed electronically to all EAC contacts for their use locally. A copy of this year's proclamation is located at: <http://www.scdhec.gov/eqc/baq/pubs/OzoneAwarenessWeek.pdf>.

**b. Developed Outreach Materials – Gas Can Exchange**

While the Department has not had the resources to track the education and outreach activities performed by non-Agency personnel in the recent past (i.e., no baseline data) to make comparisons, the EAC process has improved information regarding such activities. Because of the reporting requirements involved with the local participants towards meeting the EAC milestones, there have been numerous updates concerning outreach activities that have been initiated in the local areas. Material resources such as posters, brochures and radio and television Public Service Announcements (PSAs) developed by the Department have been requested for use by these local contacts.

Using the BAQ's protocol developed for Gas Can Exchange events, Anderson County organized and planned its own gas can exchange (09/01/2005) with some limited assistance from BAQ staff. 200 new, environment friendly gas cans were distributed, and

79 used gas cans collected. Results from Gas Can Exchange events held in other counties include:

- Georgetown – 334 pounds VOC reductions
- Greenville – 711 pounds VOC reductions
- Greenwood – 334 pounds VOC reductions
- Lexington – 348 pounds VOC reductions
- Richland – 475 pounds VOC reductions

The BAQ has drafted a protocol for hosting a Car Care Awareness Project. The draft protocol outlines planning activities associated with this inaugural Car Care Awareness Project and will be shared with the EAC contacts for information and planning consideration.

**School-related educational activities by location:**

York Co. Rosewood Elem. Worked with an Environmental Club on understanding and investigating environmental issues. (4-18-06)

Bethel Christian Camp in Gaston. SC. Guest speaker/presentation at the camp for "Environmental Day"  
(7-18-05)

Satchel Ford Elementary School. Presentation for Science Day. (3-24-06)

Central Carolina Technical College (Sumter County), Education and Outreach Support, Environmental Symposium, March 2006

Keep Beaufort County Beaufort, Local Schools (Beaufort County), Education and Outreach Support, Earth Day Events, March 2006

Southeast Elementary (Richland County), Presentation for Career Day, Education and Outreach Support, March 2006

Hampton Conservation District (Hampton County), Education and Outreach Support – Environmental Activity Books, Local Schools, March 2006

Congaree-Wood Elem (Lexington) Education and Outreach Support – Earth Day Activities

Mauldin Middle School (Greenville) Education and Outreach Support – Earth Day Activities

- Earth Fair Irmo, (Saluda Shoals, Lexington), exhibit for state wide Earth Fair, May 7th, 2005

- Crossroads Middle School (Lexington County), Education and Outreach support, environmental school project for SCDHEC pilot program, Dec. 2004-

present, air pollution reduction program

- Pine Grove Elem. School (Richland), presentation for Science Day, Feb. 2005
- Forest Heights Elem. School (Richland), presentation for Science Day, April 15, 2005
- Sanders Middle School (Richland County), Education and Outreach support, October 2004-March 2005
- Provide approximately 100 "Driving Smarter" brochures every other month to be placed at the Richland County Administration building.
- Berry Shoals Elem. School, (Spartanburg), educational materials, Special science awards, March 2005
- Museum of York County (York County), exhibit, Earth Day Birthday, April 30th
- Rawlinson Road Middle School (York County), Education and Outreach support, environmental school project through the South Carolina Department of Education, 2002-present, focus on air pollution reduction strategies

**EAC Ozone Action Needs Assessment Tool:**

A survey tool for the 2006 Ozone Season was developed and sent to EAC contacts to: 1) assess their current initiatives, 2) determine their needs for education/information resources and activities and 3) identify how BAQ staff could best support their efforts. Contact was made by BAQ staff with all responders via email and/or telephone for follow-through. A copy of this tool is available.

**c. *Breathe Better @ School* Program**

The *B<sup>2</sup>@ school* (Breathe Better Air at School) program's main focus is reducing air pollution around school campuses so everyone can breathe better. Solutions to reduce air pollution are made possible through the efforts of students, faculty, staff, community and local agencies. The *B<sup>2</sup>@ school* has many accomplishments to be proud of its first year in existence, the first, receiving the EPA Children's Environmental Health Recognition Award for 2006! Research shows that children, especially those with respiratory conditions, are more sensitive to air pollution. A key component of the *B<sup>2</sup>@ school* program is policy change within the school. A good example of this is a local school's new policy included in the student/ parent handbook that reads, "We request/advise that any individual in a vehicle that is waiting on a student or adult please turn their car off if weather is permitting. We hope to reduce respiratory problems for our students, staff and improve the air quality in our environment." The school has "No Idling" signs around the campus which were purchased as a result of winning a \$750.00 "**Champions of the Environment**" award. The number of visits to the office for asthma incidences has



decreased since the implementation of the “No Idling” policy, and the *B<sup>2</sup>@ school* coordinator was inducted into the “GreenSteps” Hall of Fame for her commitment to environmental education.

Another accomplishment of the *B<sup>2</sup>@ school* program is that it is a component of an EPA Clean School Bus grant awarding the state \$500,000 targeted for reducing air pollution through anti-idling programs, retrofitting old school buses and building new ones. As the *B<sup>2</sup>@ school* program expands, the goal is to continue reducing air pollution around school campuses and improving children’s health in South Carolina. Information is available at <http://greenstepschools.com/page1.html>

Future plans include working with the Lexington County EAC contact to implement the *B<sup>2</sup>@ school* program at three Lexington County middle schools. The plans include providing “No Idling signs for those three middle schools as well.

#### **d. SC Educators trained with Action for a Cleaner Tomorrow**

In FY05, 28 educators were trained on the Department’s environmental curriculum, Action for a Cleaner Tomorrow.

#### **e. Car Care Awareness Month (April) Project**

In recognition of Car Care Awareness Month, the Department and Richland and Lexington counties organized a vehicle maintenance check event in April. The State Museum, Ben Satcher Ford and Pope Davis Tires helped sponsor this free event on April 1, from 10 a.m. until 2 p.m. at the State Museum on Gervais Street. A team of certified technicians made suggestions for improving vehicle safety and gas mileage. The technicians also performed vehicle checks and raised citizens’ awareness about how proper maintenance of a vehicle can help to reduce air pollution and protect the public’s health.

The goal of the event, held on April 1, 2006, was to increase the target audience’s awareness about the importance of car maintenance in preserving good air quality. To reach this goal, several objectives were set, and our ability to meet those objectives is documented herein. The objectives were: to have 100 cars come through the car check lanes, create a replicable project that can be implemented in other areas across the state, and to educate drivers and volunteers who participated in the event about the importance role vehicle maintenance plays in preserving good air quality. The target audience was drivers local to the downtown Columbia area.

This event was on a large scale, and approximately 60 cars were assessed during the four-hour event. At least 2 more technicians would have been needed to have reached the first objective. This is based on the average time per car was approximately 15 minutes, from

the time the pre-survey was taken to the time the post- survey was collected and information was provided to the participant.

To help promote this event, a news release was issued by *The State* on April 1, 2006, titled – DHEC helps drivers focus on car care with expert advice.

**Statistical information for this project:**

**Tire issues:**

- 5 vehicles, or 8 percent, had at least one tire with low tread. Most states recommend tire tread to be 3/32 inches or higher.
- Since each vehicle varies on tire pressure, stats on how many vehicles had low tire pressure are not available. Over half of the vehicles at the event needed tire pressure adjustments in at least one tire or more.

**The level of:**

- CO<sub>2</sub> (standard is: 14-16 percent) 0 vehicles, or 0 percent, exceeded the standard
- HC (standard is: 100) 10 vehicles, or 17 percent, exceeded the standard
- CO (standard is: 1.0 percent) 7 vehicles, or 12 percent, exceeded the standard
- O<sub>2</sub> (standard is: 1.0 percent) 13 vehicles, or 22 percent, exceeded the standard

**OBD light on:** 6 vehicles, or 10 percent, exceeded the standard

**Air Filter:** Air filters in 15 vehicles, or 25 percent, needed attention

The BAQ has drafted a protocol for hosting a Car Care Awareness Project. The draft protocol outlines planning activities associated with this inaugural Car Care Awareness Project and will be shared with the EAC contacts for information and planning consideration.

**f. Earth Week**

Governor Sanford signed a proclamation declaring April 16-22, 2006 as “Earth Week” in support of the efforts described above. A copy of this proclamation is located at: <http://www.scdhec.gov/eqc/baq/pubs/earthweek.pdf>

Earth Day 2006 included DHEC celebrating **Earth Day** with participating schools all around the state with help from volunteer staff. Throughout the month of April staff visited with registered schools and watched DHEC’s Emmy-award winning *Earth Today* video with students. Following the video, staff held question and answer sessions, lead environmental projects, and distributed promotional items such as wildflower seed packets, activity booklets, recycled pencils and posters.

With an initial target goal to reach 6,000 students, volunteers extended outreach to over 11,000 general audience members in twenty (20) of the forty-six (46) counties. In addition, The *Earth Today* video was among the top 100 videos, among 3,406, requested from SCETV's Streamline Program for the month of April.

Staff found students enthused about the video and eager to participate in the follow-up questions. Several schools have already expressed the desire to participate in next year's Earth Day events while the Department anticipates hearing of the environmental efforts initiated by participating school in the coming months.

Many adults were also excited about their newfound environmental concepts such as alternate fuels and the display of hybrid vehicles at events around the state. Many onlookers stated that they planned or hoped to make a hybrid car their next vehicle of purchase. Information that was collected through an evaluation tool is still being collated at this time, but will be available.

#### **Earth Day Activities – Friday, April 21, 2006**

The Department set a goal for 2006 to send employees into more than 200 classrooms across the state to help raise environmental awareness among our students. Employees viewed the Department's three year running, Emmy-winning video *Earth Today* with students and answering questions afterward. The Agency's Earth Day materials were available for staff visiting with classrooms.

Via the S.C. Dept of Education, Science teachers and Media Specialist around the state were invited to register and participate. The Department's website included Earth Day plans and information for teachers to register: <http://www.scdhec.gov/earthtoday/>.

Additional information on the agency's plans for Earth Day and Education and Outreach services, was available during the following briefings scheduled for March at the Department's Central Office in Columbia on the following dates:

Friday, March 3 @ 10 a.m.

Friday, March 10 @ 10 a.m.

Friday, March 17 @ 2 p.m.

Friday, March 24 @ 10 a.m.

Friday, March 31 @ 10 a.m.

The following are Earth Day 2006 participants in which Education and Outreach Support was provided:

McLees Elem	Anderson
Starr Elem	Anderson
Wren Elem	Anderson
Grove Elem	Greenville
Armstrong Elem	Greenville

Liberty Elem	Pickens
Greenview Elem	Greenville
Calvary Christian Central	Greenville
Lone Oak Elem School	Spartanburg
Cannons Elem	Spartanburg
Inman Elem	Spartanburg
DR Hill Middle	Spartanburg
West View Elem	Spartanburg
USCS Upstate	Spartanburg
Great Falls Middle	Chester
Rosewood Elem	York
Andrew Jackson Middle School	Lancaster
Jefferson Elem	York
Gold Hill Elem	York
Indian Land Elem/Middle School	Lancaster
Chester Park Elem School of Arts	Chester
Cotton Belt Elem	York
A R Rucker Middle	Lancaster
Chester Park Elem School of Arts	Chester
Heath Springs Elem	
Bethel Hanberry Elem	Richland
Lexington Elem	Lexington
Plainview Elem	Chesterfield
Schofield Middle	Aiken
Paul Knox Middle	Aiken
Warrenville Elem	Aiken
N. Augusta Earth Day	Aiken
Aiken's Earth Day	Aiken
Carolina Forest Middle	Horry
Jasper County High	Jasper
Cottageville Elem	Colleton

Rosewood Elem	Richland
North Springs Elem	Richland
H.B. Rhame Elem	Richland
Forest Lake Elem	Richland
North Springs Elem	Richland
Montessori School of Camden	Kershaw
Forest Heights Elem	Richland
White Knoll Middle	Lexington
Rice Creek Elem	Richland
Lake Murray Elem	Lexington
Congaree-Wood Elem Sandhills Intermediate	Lexington
Lake Murray Elem	Lexington
Bethel Academy	Richland
St. Peter Academy	Richland
Earth Fare Earth Day	Richland

**g. Small, Gas-powered Engine Exchange Project**

- Staff are currently meeting with EAC contacts in Greenville, Richland and Lexington counties to discuss the development of a small gas engine exchange project. Specifically, the project is targeting the exchange of gas-powered lawn mowers for electric mowers. A copy of the logic model for planning this event is available. Also available is a draft needs assessment tool to assist the planners in gathering information to help identify support/barriers to supporting this project. It is tentatively planned to be utilized with a sample of the target audience prior to finalizing planning for implementation of this project.

**Press Coverage**

Over the last several years, numerous press releases, news publications and television reports have been done on the early action process. Additional articles for specific areas may be found in the local progress reports submitted by the participating areas. The following press releases and news articles are included as Attachment 15.

GLO Awareness Week/Proclamation-  
<http://www.scdhec.net/administration/news/2006/nr20060428-01.htm>

Earth Day- <http://www.scdhec.net/administration/news/2006/nr20060420-01.htm>

Car Care Event- <http://www.scdhec.net/administration/news/2006/nr20060320-04.htm>

Open Burning (Nov. 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200511/nr11BurningGreenville05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200511/nr11BurningGreenville05.htm)

Open Burning (Oct. 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200510/nr10OpenBurning05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200510/nr10OpenBurning05.htm)

Ozone Warning (July 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200507/nr07OzoneMidlands05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200507/nr07OzoneMidlands05.htm) and

[http://www.scdhec.net/administration/news\\_archive/releases/2005/200507/nr07OzoneUpstate05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200507/nr07OzoneUpstate05.htm)

Ozone Warning (June 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200506/nr06OzoneAlert6-23-05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200506/nr06OzoneAlert6-23-05.htm)

SmartRide/Free Ride-OAC (June 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200506/nr06FreeRide05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200506/nr06FreeRide05.htm)

SmartRide (June 2005)-  
[http://www.scdhec.net/administration/news\\_archive/releases/2005/200506/nr06SmartRide05.htm](http://www.scdhec.net/administration/news_archive/releases/2005/200506/nr06SmartRide05.htm)

Ozone Forecasting (April 2004)  
[http://www.scdhec.net/administration/news\\_archive/releases/2004/200404/nr04OzoneSeason04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200404/nr04OzoneSeason04.htm)

GCE (June 2004)  
[http://www.scdhec.net/administration/news\\_archive/releases/pdf\\_files/2004GasCanExchange.jpg](http://www.scdhec.net/administration/news_archive/releases/pdf_files/2004GasCanExchange.jpg)

GCE (June 2004)  
[http://www.scdhec.net/administration/news\\_archive/releases/2004/200406/nr06GreenwoodCans04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200406/nr06GreenwoodCans04.htm)

Non-Road Diesel Rule (May 2004)  
[http://www.scdhec.net/administration/news\\_archive/releases/2004/200405/nr05DieselRule04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200405/nr05DieselRule04.htm)

Ozone Alert (May 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200405/nr05-06Ozone%20alert04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200405/nr05-06Ozone%20alert04.htm)

Ozone Hotline (July 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200407/nr07OzoneHotline04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200407/nr07OzoneHotline04.htm)

Cutting Diesel Emissions (July 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200407/nr07DieselEmissions04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200407/nr07DieselEmissions04.htm)

New OB Regulations (July 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200407/nr07BurningRules04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200407/nr07BurningRules04.htm)

Truck Stop Electrification (Oct. 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200410/nr10MAElectric04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200410/nr10MAElectric04.htm)

GCE (Oct. 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200410/nr10MidlandsCans04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200410/nr10MidlandsCans04.htm)

GreenScapes Project (Nov. 2004)

[http://www.scdhec.net/administration/news\\_archive/releases/2004/200411/nr11GreenScapes04.htm](http://www.scdhec.net/administration/news_archive/releases/2004/200411/nr11GreenScapes04.htm)

August 28, 2002 – DHEC press release – “Planning for Cleaner Air Sooner”

September 3, 2002 – Bureau of National Affairs Daily Environment out of Atlanta announced South Carolina’s decision to take advantage of EPA’s offer to implement early measures to meet the 8-hour ozone standard.

September 5, 2002 – Greenville News – “Upstate will meet new clean air standards before deadline, DHEC says”

Fall 2002 – The Palmetto Planner – A Publication of the South Carolina Chapter of the American Planning Association – included article titled “The Bureau of Air Quality’s Early Action Plan for the 8-Hour Ozone Standard.

September 25, 2002 – DHEC press release – “Meeting on air quality plan set for Oct. 1”

October 1, 2002 – The State – “Groups oppose state’s ozone plan”

October 4 – Greenville News – “Early air effort could keep EPA at bay”

October 4 – Spartanburg Herald-Journal - “DHEC outlines clean-air proposal; State health officials on Thursday explained to an Upstate audience a proposal they say is a common-sense approach to cleaning up South Carolina’s air sooner.”

October 8, 2002 – Morning News – “Pee Dee air quality not up to par of EPA”

October 17, 2002 – Charleston Post and Courier – “State asked to get a jump on tougher ozone standards” – Article summarizing public meeting held in Charleston by DHEC.

November 14, 2002 – Anderson Independent-Mail – “Government agrees to ozone deadline”

November 22, 2002 – Spartanburg Herald-Journal – “Air quality resolution wins support”

November 27, 2002 – Clean Air Today – “SC Officials Discuss Air Quality Plans at Summit”

December 2002 – Spartanburg Herald Journal – “Council votes to join 3-county compact to improve air quality”

December 2002 – Augusta Chronicle – “City considers air-quality plan”

January 2003 – The Charlotte Observer – “York County is trying to get jump on upcoming new standards”

January 30, 2003 – Darlington News and Press – “Ozone problem threatens local economy, DHEC reps, local industry meet to help county avert federal penalties”

February 21, 2003 – DHEC press release – “Ozone early action update meeting Feb. 26”

February 27, 2003 – Anderson Independent Mail – “State wants ideas to clean the air”

February 27, 2003 – The State – “S.C. making plans to clean up its air”

April 28, 2003 – DHEC press release – “Ozone forecasting begins in Pee Dee”

April 28, 2003 – Morning News – “Pee Dee counties added to ozone program”

April 29, 2003 – The Post and Courier – “4 counties to be added to S.C.’s ozone forecast”

April 30, 2003 – Morning News – “Greater ozone awareness brought to Pee Dee”

May 13, 2003 – Anderson Independent Mail – “Group creates plan to reduce Upstate Ozone”

May 15, 2003 – DHEC press release – “Meeting set to discuss air quality proposal”



June 9, 2003 – Anderson Independent Mail – “State warns of sun’s rays and ozone today”

June 9, 2003 – DHEC press release – “Legislators support air quality early action plans”

June 11, 2003 – DHEC press release – “Gas can trade will help air quality” (also includes Public Service Announcements)

## **2. Commuting Reduction Programs**

### **a. Take A Break From The Exhaust (TABFTE)**

The “Take a Break from the Exhaust” (TABFTE) project developed by the Department, is an interactive alternative commute program in which employees are asked to take voluntary actions to help reduce emissions from mobile sources, such as cars and trucks to help improve air quality. Some examples of these actions include: carpooling to work, staying in for lunch, working an alternate work schedule, telecommuting, using mass transit, bicycling or walking to work. The TABFTE project was awarded the *Governor’s 2003 Pollution Prevention Award for State Agencies*. The project’s software tracking tool was important in supporting the BAQs application to participate in the U.S.EPA and U.S. Department of Transportation’s *Best Workplace for Commuters* voluntary program, which the BAQ holds the only designation in South Carolina

Prior to 2004, the Department focused on behavior changes including, carpooling, riding a bicycle to work and staying in for lunch. In 2004, the Department began estimating emission reductions.

#### **Reductions for 2004 Ozone Season:**

BAQ reduced just over 100,000 miles in 2004

598 pounds of VOC’s reduced

393 pounds of NO<sub>x</sub> reduced

5,494 pounds CO reduced

The utilization of the TABFTE grew in 2005, with the Bureau of Water (BOW), Bureau of Land & Waste Management (BLWM), the SC State Energy Office (SCEO) and the Wisconsin Department of Natural Resources using this program. The BAQ also partnered with the SC Department of Transportation and the SCEO to promote rider ship on the SmartRide alternative transportation project during Ground-level Ozone Season.

On Friday, April 15, 2005, *The State* newspaper wrote a story on one TABFTE partner and his decision to give up his car for a bike and public transportation. This generated interest in more bike and pedestrian paths and public transportation in the Columbia area.

In 2005 the goal for BAQ was to reduce over 100,000 miles. Staff within the BAQ surpassed this goal by almost 40,000 miles! Another goal was to have the TABFTE program reduce 150,000 miles overall. Results program wide showed that the goal was almost DOUBLED!

#### **2005 TABFTE participants included:**

Bureau of Air Quality

Bureau of Water

Bureau of Land and Waste Management

South Carolina Energy Office

Wisconsin Department of Natural Resources

**Total Reductions for 2005 Ozone Season for South Carolina only:**

286,889 miles reduced

1,076 pounds of VOC's reduced

684 pounds of NO<sub>x</sub> reduced

**Individual reductions for 2005 Ozone Season:**

**Bureau of Air Quality, SCDHEC:** In 2005, BAQ had 111 participants and reduced 139,264 miles during the season. This season the BAQ has reduced 248,700 grams (**548 pounds**) of VOC's and 172,786 grams (**318 pounds**) of NO<sub>x</sub>.

**Bureau of Water, SCDHEC:** 2005 was BOW's first year of participation. In 2005, BOW had 98 participants and reduced 100,881 miles during the season. This season, BOW reduced 178,948 grams (**395 pounds**) of VOC's and 124,127 grams (**274 pounds**) of NO<sub>x</sub>.

**Bureau of Land and Waste Management, SCDHEC:** BLWM expressed an interest in TABFTE about half way through the season. Even though BLWM plans to participate in full in 2006, the thirty-two participants reduced over 25,852 miles. This season, BLWM reduced 46,086 grams (**102 pounds**) of VOC's and 31,650 grams (**70 pounds**) of NO<sub>x</sub>.

**South Carolina Energy Office:** SCEO provided the grant that enabled TABFTE to come into existence back in 2000. This year, SCEO decided to participate in TABFTE after we made a presentation to their group in February. Even though they are a small group, SCEO reduced 7,892 miles this year. This season, SCEO reduced 14,172 grams (**31 pounds**) of VOC's and 9,798 grams (**22 pounds**) of NO<sub>x</sub>.

**Wisconsin Department of Natural Resources (WDNR):** While attending a National Air Quality Conference in San Francisco, staff spoke with a few people about TABFTE. WDNR expressed an interest, and since TABFTE is a web-based program, we added them to our list of users. In 2005 the twenty participants reduced over 15,513 miles and had a reduction of 18,304 grams (**40 pounds**) of VOC's and 15,266 grams (**34 pounds**) of NO<sub>x</sub>.

**2006 TABFTE participants:**

Bureau of Air Quality

Bureau of Water

Bureau of Land and Waste Management

South Carolina Energy Office

Wisconsin Department of Natural Resources

Lexington County Government

Central Midlands Council of Governments

Winthrop University - York County

York Technical College

Bowater - York County  
Citi Group - York County  
Springs Industries - York County

Results for the 2006 Ground-Level Ozone Season will be provided with the December 2006 Progress Report. As of the date of this submittal, 7 participants have joined the program for the 2006 ground-level ozone season bringing the total number of TABFTE participants to 12.

#### **b. SmartRide Program**

In October 2003, the South Carolina Department of Transportation (SCDOT) conducted the SmartRide Research Project. For four weeks, the SCDOT provided commuter focused transit service and gathered information regarding the use of alternative forms of transportation. The project was a temporary mass transit service that focused on the needs, concerns and preferences of working commuters. Between October 6<sup>th</sup> and October 31<sup>st</sup>, the SmartRide Research Project served an average of 68 riders daily and provided a total of 2,730 passenger trips to and from work. The Smart Ride Research Project represents a strategy that can potentially improve traffic congestion and air quality conditions in South Carolina. The effective utilization of an expanded network of commuter-focused transit operations could result in the reduction of vehicle miles traveled each year.

As a result of the SmartRide Research Project, in June 2004, "SMARTRIDE" returned to the Central Midlands area and continues today. Santee Wateree Regional Transportation Authority began commuter service originating from Camden to the Columbia area and the Central Midlands Regional Transportation Authority began commuter service from the City of Newberry with stops in Little Mountain and Chapin and then on to Columbia. The development of similar "SMARTRIDE" projects in other areas of the State is anticipated.

During the 2005 Ozone Season, to promote SmartRide and to encourage reductions of ozone precursors, free rides were offered for those days designated as Ozone Action Days. The BAQ helped promote this effort by providing posters and public service announcements. In addition, the BAQ provided \$500.00 to help off-set the cost. During the 2006 Ozone Season, free rides on Ozone Action Days will again be offered.

#### **SmartRide Statistics for 2005:**

##### **Passenger Boardings:**

Total Newberry – Columbia:

January - November 2005

4,932 boardings

Increase of 200 percent starting with 338 in January and 659 in November

Total Camden – Columbia:

July 1 - October 30, 2005

4,770 boardings

The number of boarding approximately doubled per month from July 2004 to June 2005.

**Emissions Reductions (Lexington, Newberry, Kershaw, and Richland):**

207 pounds NO<sub>x</sub>

153 pounds VOC

3,166 pounds CO

**SmartRide Statistics for 2006:**

**Passenger Boardings:**

Total Camden – Columbia:

November 2005 – May 2006

7,514 boardings

**Emissions Reductions (Kershaw, and Richland):**

684 pounds NO<sub>x</sub>

943 pounds VOC

**c. SIGIS carpool matching program**

The Department initiated a web-based, map based carpooling program in December 2005. The program facilitates ridesharing opportunities throughout the state by allowing interested employees to map their commute trip information and view the trips entered by other employees. The program is available to 4,987 Department employees in eight environmental quality control offices, eight regional public health offices, four Ocean and Coastal Resources Management Offices, and eight office locations in Columbia. At this time there are approximately forty-five participants. The program has undergone some recent refinements. A second agency-wide email notification about the program was sent out on June 27, 2006 from Earl Hunter, Commissioner of the Department.

**d. Best Workplace for Commuters**

The Bureau of Air Quality was designated as a "Best Workplace for Commuters" on February 3, 2005. Currently, the BAQ holds the only designation in South Carolina. However, BAQ continues to promote this program to EAC areas and to other program areas within the Department.

**e. Audio-conferencing**

The Department offers employees 3 audio-conferencing choices based on the number of participants (up to 6, up to 30, or up to 144 lines). Department employees as well as other state agency employees were faced with travel restrictions in the late summer months of 2005. Employees were notified via e-mail of the audio-conferencing capability.

### 3. Ground Level Ozone Awareness Week Proclaimed

#### 2005

Governor Mark Sanford proclaimed **March 28 – April 1, 2005** as Ozone Awareness Week in South Carolina. The EAC areas used the proclamation to launch their 2005 Ozone Awareness efforts. Some of these efforts included:

- *The State* newspaper (which is widely circulated in Richland and Lexington Counties) ran an article recognizing Richland County staff's effort to promote Ground-level Ozone Awareness Week, their work to provide alternative fuel for county flex-fuel vehicles and the link of their county web page for the SCDHEC ozone forecast.
- Richland County staff sent out a press release (03/25/05) to promote Ground-level Ozone Awareness Week and provided additional information on their web page: [www.rcgov.us](http://www.rcgov.us). An email was sent (03/29/05) to almost 900 county employees promoting the week.
- Lexington County EAC contact distributed (03/23/05) Ground-level Ozone Awareness information in paychecks to 1,300 employees.
- Anderson County staff sent out a news release (03/28/05) on Ground-level Ozone Awareness Week and promoted the week on a local radio station, WRIX 103.1FM. An article on Ground-level Ozone was also placed on their county web page: [www.andersoncountysc.org](http://www.andersoncountysc.org).
- SCDHEC staff provided interviews on Ground-level Ozone Awareness Week to two radio stations: News Talk for Charleston 1250AM (03/29/05) and Columbia WVOC 560AM (03/30/05).
- SCDHEC staff provided an interview for WIS-TV in Columbia for Ground-level Ozone Awareness Week. Information may be found at this link: <http://www.wistv.com/Global/story.asp?S=3132984&nav=0RaMXyjF>.
- The Charleston County Administrator sent an email (03/28/05) to county employees regarding Ground-level Ozone Awareness Week and staff set up a display in their Public Services Building to provide more information.
- Laurens County EAC contact distributed (03/22/05) news release to two local newspapers, and included tips on cleaner air and the Governor's proclamation for Ground-level Ozone Awareness Week. A similar package of information was distributed to 300 county employees.
- The York County EAC contact worked with the York County Council to declare March 28-April 1, Ground-level Ozone Awareness Week. Ground-level Ozone

Awareness bookmarks were mailed, along with the county council agenda, to 300 citizens.

The following includes materials that were requested by the EAC areas:

<b>County/COG</b>	<b>Item</b>	<b>Number</b>
Chester	Spare the Air – paycheck inclusions	250
Cherokee	Ozone and Your Health	50
Greenville	Ozone and Your Health	200
	Learn Before You Burn	200
	Coloring Books – Spare the Air	100
	Pencils	150
	PDF of Display	1
	Air PSA	1
Charleston	Learn Before You Burn	200
Georgetown	Air is Everywhere Posters	5
Lexington	Air PSA	6
Anderson	Air PSA	1
Spartanburg	Air PSA	1
Appalachian COG	Air PSA	1
Richland	Air PSA	1
Central Midlands COG	Air PSA	1
York	Air PSA	1
Catawba	Air PSA	1
Abbeville	Air PSA	1
Abbeville	Ozone and Your Health (for Paycheck)	200
Allendale	Ozone and Your Health	200
York	Learn Before You Burn	500
	Gas Can Exchange Brochures	100
Aiken	Ozone and Your Health	100
	Coloring Books – Spare the Air	450
	CO2 Brochures 150	150
	Driving Smarter 450	450
	Learn Before You Burn 150	150
	Learn Before You Burn Spanish	100
	Pencils	1 Box (500)
Pickens	Notepads	25
	Pencils	25
	Air Fresheners	25
	Ozone Posters	25
	Care About Air coloring books	25



All counties received:

- Coloring Book
- Bookmarks (*It All Adds Up To Cleaner Air*)
- Posters (*Ozone, Air is Everywhere, Good Up High*)
- Ozone and Your Health* Brochure and Electronic Version
- Instructions to link to the SCDHEC Bureau of Air Quality website
- Note Pad
- Pencil
- Information on EPA website
- Draft Press Release
- Electronic Version of Proclamation
- 25 Things To Improve Air Quality* flyer and Electronic Version

Department contributions:

- Letters and 2,000 posters to doctors' offices statewide regarding ozone
- Distributing 5,000 flyers in paychecks
- Press releases
- E-mail about Ozone and Proclamation sent to Air Program staff

**2006**

Governor Mark Sanford proclaimed **May 1 – May 7, 2006** as Ozone Awareness Week in South Carolina. This was the seventh consecutive year for this proclamation. A news release was issued by the Department on April 28, 2006.

An **Ozone Action Needs Assessment Tool** (Tool) was sent to all of the EAC contacts. The Tool was developed to assist local areas in promoting awareness of the 8-hour Ozone Season and the Early Action Compact (EAC) process was developed for 2006. Local areas were encouraged to promote and implement measures that will reduce ozone precursors within their county. The Tool offered suggestions for strategies that will increase awareness and thereby create a positive impact on public health and the environment. Local areas were asked to review the list of activities/strategies and indicate if they have already implemented; will implement in 2006; request additional information/assistance; or are not interested. The Tool was returned by nineteen EAC contacts. Staff within the division contacted those counties that returned the Tool and are providing additional information and assistance.

An example of a request from an EAC regarding this follow-up:

Spartanburg County requested a number of outreach materials and was provided:

- 150 Clean Air Kid Bookmarks
- 10 Ozone Action Class Brochures
- 10 DHEC Environmental Outreach Booklets
- 100 Drive Smarter for tomorrow
- 10 Good Up High, Bad Nearby Posters (Small)
- 10 Good Up High, Bad Nearby Posters (Large)

## 4. Regulatory Initiatives

In the Spring of 2003, the Department began meeting with industry representatives, environmentalists, local governments, and other interested parties to develop state-wide regulations for the purpose of getting additional Oxides of Nitrogen (NO<sub>x</sub>) and Volatile Organic Compounds (VOC) reductions to assist us with the EACs. NO<sub>x</sub> reductions were focused on during these meetings because modeling indicates that with respect to ozone formation, NO<sub>x</sub> is the critical pollutant. Furthermore, sensitivity analysis has demonstrated that VOC reductions have very little impact on ozone in South Carolina. The EAC process resulted in the promulgation of one new statewide regulation to control NO<sub>x</sub> from stationary sources. In addition, the existing open burning regulation was revised to add more stringent restrictions. Upon publication in the June 25<sup>th</sup> 2004 issue of the *State Register*, the EAC regulations became effective.

### **Regulation 61-62.5, Standard 5.2, Control of Oxides of Nitrogen**

The Control of Oxides of Nitrogen NO<sub>x</sub> Regulation (R.61-62.5, Standard 5.2), while not needed to demonstrate attainment, will help ensure the areas attain and maintain the 8-hour ozone standard. The Control of NO<sub>x</sub> Regulation requires Best Available Control Technology (BACT)-level controls on all stationary sources that emits or have the potential to emit NO<sub>x</sub>. Many of these sources would not otherwise be required to control their NO<sub>x</sub> emissions. For example, under the Clean Air Act requirements, the preconstruction review program referred to as New Source Review (NSR) only applies to larger sources (generally those with potential emissions greater than 100 tons per year or more). For sources with emissions below these levels, there are generally no controls for NO<sub>x</sub> required.

This newly developed regulation that applies state-wide to new and existing stationary sources of NO<sub>x</sub> emissions. Larger sources that have undergone a BACT review for NO<sub>x</sub> are exempt from the regulation; however, larger sources that have taken limits to opt out of a Potential for Significant Deterioration (PSD) review will still be required to comply with this regulation which covers sources ranging from boilers and turbines to fluidized bed combustors and lime kilns. For existing sources, the regulation only applies when an applicable unit replaces their burner. At this point, they will be required to replace their burner with a low burner or equivalent technology capable of achieving a 30% reduction from uncontrolled levels.

It is important to note that local officials and industrial leaders supported the Control of NO<sub>x</sub> Regulation and amendments to the open burning regulation in good faith.

Appendix 13 of the December 2004 EAC SIP submittal provides estimated NO<sub>x</sub> reductions that are expected as a result of this new regulation. These estimates have also been included in Appendix 16 of the December 2004 EAC SIP as part of the county level emission reductions for the EAC areas. The tables are divided into three groups (two of the tables provide expected NO<sub>x</sub> from regulation 61-62.5, Standard 5.2, the third table provides reductions expected from the revisions to the open burning regulation). The first

table in Appendix 13 of the December 2004 EAC SIP provides estimates based on the percent reduction to be achieved for new sources. The reductions for new sources vary greatly depending on the source type. For instance, for new combined cycle natural gas turbines of less than 50 megawatts capacity will be required to install controls that will achieve the equivalent of a 94% reduction from uncontrolled levels. The control requirements will help ensure that the growth of NO<sub>x</sub> emissions is controlled. The second table in Appendix 13 of the December 2004 EAC SIP pertains to estimated reductions from existing sources. As this regulation will be triggered based on existing sources replacing their burners, it may take a number of years for these reductions to be realized. However, these estimates, based on the number of applicable sources in the inventory, indicate that when fully implemented, the regulation has the potential to reduce NO<sub>x</sub> emissions by 2,913.51 tons per year. It is important to note that these reductions were not used to support the modeling demonstration. Even without these additional control measures, which will apply statewide rather than just in select areas, modeling analysis indicates that all monitors will be attaining the standard by 2007. However, the reductions from these regulations are quantifiable, permanent and will ensure that South Carolina gets cleaner air sooner.

### **Regulation 61-62.2, Prohibition of Open Burning**

The most significant revisions to this regulation are as follows: deleting the exception for the burning of household trash, revising the exception for the burning of construction waste, and revising the exception for fires set for the purpose of firefighter training. The burning of household trash presents health and environmental concerns for many communities. The smoke generated from these activities is a nuisance to some and a health threat to others with asthma or other respiratory problems. Furthermore, the Department spends a lot of staff time and resources responding to complaints relating to these activities. Regulation 61-62.2 had previously prohibited the burning of household waste except where other disposal options were not available. This activity is now clearly prohibited and this should provide the clarity necessary to help us enforce this restriction.

With respect to the exception for the burning of construction waste, the Department has revised this provision to allow only residential construction waste to be burned and this will only be allowed if it meets the provisions of the regulation. For instance, such waste will now only be allowed to be burned outside of the ozone season (April 1 through October 30) and only if the burning is conducted at least five hundred feet from any occupied structure. Furthermore, only certain “clean” wastes are allowed to be burned. Again, the Department believes that the burning of construction waste presents health and environmental concerns for many and that prohibiting this waste from being burned will alleviate some of these concerns and will also provide additional NO<sub>x</sub> reductions.

Finally, the exception for the purpose of firefighter training has been revised to ensure that minimum health, environmental and safety concerns are addressed. The Department intends to do a review of permanent firefighter training facilities and will evaluate nonpermanent sites and require Department approval prior to a burn.

Based on the Department's 1999 emissions inventory, residential burning of household waste generates 2,379 tons of NO<sub>x</sub> and 11,896 tons of VOCs in the state annually. As for the ban on the burning of construction waste, the data indicates that the ban on residential construction waste alone will result in annual reductions of 147 tons of NO<sub>x</sub> and 625 tons of PM (see Appendix 13 of the December 2004 EAC SIP for further information). Information on the amount of reductions to be expected from the ban on the burning of commercial construction waste is not available, but it is clear that substantial reductions in NO<sub>x</sub> and VOCs will occur statewide starting in 2004 as a direct result of the elimination of this activity as well. Additionally, Appendix 16 of the December 2004 EAC SIP includes county level emission reductions and descriptions for the EAC areas.

On April 14, 2005, the Department issued a news release reminding citizens in SC of the revised regulations. Additional news releases were sent out during the fall of 2005 to encourage citizens to use alternatives for disposing of yard trash.

An Inter-Bureau Open Burning Workgroup comprised of staff from the Bureau of Land and Waste Management (BLWM) and BAQ was formed to assist staff in consistently implementing and enforcing the regulations pertaining to open burning and messages regarding alternatives to open burning for waste disposal. The result will enable a better and more consistent message to various target audiences regarding the issue of open burning and the intent is to reduce open burning as a means of waste disposal. Goals include internal and external training as well as the development of a proactive information campaign targeting various audiences. A copy of the draft logic model for planning the education and outreach activities for this effort is available.

## **5. Assist local areas in determining emission reductions**

South Carolina has been and will continue to work with EPA to assist local areas in determining the emission reduction strategies that will assist the area in achieving emission reductions needed for maintaining the 8-hour ozone standard within their respective area. The emission reduction strategies submitted by the local areas contain both quantifiable and directionally sound measures, it should be noted that none of them were included in the attainment demonstration model for 2007.

The EAC process encourages state and local areas to design control strategies that best fit their specific needs. As part of this process the Department began meeting in 2002 with local governments, industry representatives, environmental groups, and other state and federal agencies in an effort to develop state and local control strategies to reduce ozone precursors as part of the commitments under the compacts. The Department tackled these requirements from many different perspectives. The Department met with the local EAC areas to consult with them and provide them with assistance on developing the local plans. The Department formed stakeholder groups and conducted meetings in an effort to develop statewide regulations to achieve additional reductions in ozone precursors to support the EAC process.

## **6. Clean Air Initiatives for Government Entities**

Bureau of Air Quality (BAQ) staff were charged with the task of developing, implementing and marketing a plan for reducing precursors to ground-level ozone emissions by state government that supports the Early Action State Implementation Plan initiative. Bureau staff solicited participation from other state government agencies to include the transportation sector and property maintenance agencies. Also included were local Council of Governments and the Palmetto State Clean Fuels Coalition. A major accomplishment of the group is the passing of a Concurrent Resolution by the South Carolina State Legislature on May 14, 2003. This resolution supports the activities of the Department's establishment and implementation of the state's early action approach for complying with the 8-hour ozone standard and provides for the establishment of an intergovernmental workgroup for the purpose of promoting behaviors and policies to reduce air pollution throughout the state of South Carolina.

In 2005, three policies (telecommuting, alternate work schedules and variable work hours) in the Department's Administrative Policy Manual were updated to encourage these activities to help protect ambient air quality.

Other accomplishments through April 2005 included the following:

- Richland County requested air quality articles for use in their staff newsletter and information regarding the EPA *Energy Star* Power Management program to share with county administration.
- A staff person from the South Carolina Department of Transportation (SCDOT) was designated to receive the Department's Ground-level Ozone Forecast and to distribute it via e-mail to approximately 5,000 staff. SCDOT utilizes the Department's Ozone Forecast Internet link for the forecast on their web page. SCDOT roadside emergency signs in the Upstate and Midlands will be utilized for Ground-level Ozone Action Alerts. The number of signs by county (April 2005) is: Anderson (1), Greenville (5), Spartanburg (7), Oconee (1), Richland (5), Lexington (2), and Orangeburg (10).
- The South Carolina State Energy Office implemented "Take a Break from the Exhaust" in their office during the 2005 Ozone Season.

The utilization of the TABFTE grew in 2005, with the Bureau of Water, Land & Waste Management and the SC State Energy Office using this program. (Detailed information on the TABFTE program may be found under Commuting Reduction Options (2.a.) of this report.) The BAQ also partnered with the SCDOT and the Energy Office to promote ridership on the SmartRide Alternative Transportation project during Ground-level Ozone Season.

## 7. Smart Highways

The Smart Highways effort through the EAC process addresses transportation planning and any impact transportation might have on air quality. This approach is not a requirement of the EAC and is not being done in any other EAC area in the country. It is an example of the commitment by air quality and transportation agencies at the local, state, and federal level. In the event that deferral of the effective date of the nonattainment designation is withdrawn, these areas will be fully prepared to address the full regulatory requirements of Transportation Conformity. In addition, South Carolina already has in place the necessary consultation procedures to address traditional transportation conformity requirements for all pollutants in any nonattainment area. Again, this initiative is something no other state has accomplished.

The parties involved in the interagency meetings developed a Smart Highways checklist to be used in transportation planning. This checklist is intended solely as an informational guideline to be used in reviewing Long Range Transportation Plans and Transportation Improvement Programs for adequacy of their documentation and will be used during long range transportation plan updates as required by 23 CFR 450.322. A copy of the Smart Highways Checklist is attached in Appendix 12 of the December 2004 EAC SIP. Air quality and transportation officials engaged in these interagency meetings include the Metropolitan Planning Organizations (MPOs) from the deferred nonattainment EAC areas (Anderson Area Transportation Study (ANATS), Greenville-Pickens Area Transportation Study (GPATS), Spartanburg Area Transportation Study (SPATS) and the Columbia Area Transportation Study (COATS)), the South Carolina Department of Transportation, Federal Highway Administration South Carolina Division, EPA Region 4, Federal Transit Administration, and the South Carolina Department of Health and Environmental Control.

As a result of this effort, each of the four Metropolitan Planning Organizations (MPOs) in deferred nonattainment areas (Greenville, Anderson, Spartanburg, Richland and Lexington counties) demonstrated that their respective long-range transportation plan eliminates or reduces violations of the national ambient air quality standards (NAAQS). Copies of the four MPO reports may be found at [http://www.scdhec.gov/eqc/baq/html/eap\\_Smart\\_Highways.html](http://www.scdhec.gov/eqc/baq/html/eap_Smart_Highways.html).

The documentation in the reports was the subject of interagency consultation. Interagency consultation began in January 2003, and continued through completion of the emissions analysis with regular meetings to discuss and agree upon schedules, model parameters, latest planning assumptions, horizon years, exempt projects, and regionally significant projects. In addition, each of the MPOs provided public review of this report in accordance with the respective MPOs public involvement policy. A key element of the public involvement process is a public review of transportation planning documents including the Long-Range Transportation Plan.

Using 2002 as the base year, the following table shows that the emissions expected from implementing the proposed MPO long-range transportation plan(s) are less than

emissions from either the baseline case or the no-build case for 2007. Further emission reductions are forecasted for the longer term. The specific numbers can be found in each MPOs report.

	ANATS		GPATS		SPATS		COATS	
	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC
2002	7.703	4.354	30.213	19.276	17.96	10.58	45.295	27.135
2007	5.507	2.94	21.58	13.648	11.86	6.83	32.017	18.962
Reduction tpd	2.196	1.414	8.633	5.628	6.1	3.75	13.278	8.173
Reduction tpy	801.54	516.11	3151.045	2054.22	2226.5	1368.75	4846.47	2983.145

tpd = tons per day

tpy = tons per year

### **EAC Reinforcement of Planning Initiatives at the Local Level**

The EAC process has allowed contact with counties at a critical time in their comprehensive planning process. Many are in the midst of updating their 5 and 10-year plans. The dates for completing these do not coincide with EAC dates but improving air quality does not have a “sunset” provision. Many counties have already begun or completed changes to their land use plans that reduce sprawl and traffic congestion.

#### **Anderson County**

Highlights of the Anderson County Land Use and Development Standards include items that develop standards with respect to landscaping and open space, promote public health and safety through the reduction of noise pollution, storm water runoff and air pollution. Also included are development standards with “Greenways” defined which link residential areas with other open space areas. These greenways may contain bicycle paths, footpaths, and bridle paths. Additionally, intensity standards (designed principally to regulate land use in accordance with the design function and carrying capacity of the road on which it is located) are being developed.

#### **Greenville County**

*Smart Growth America* has said about the City of Greenville, “The city has the right idea about how communities should be designed.” It has chosen Greenville as one of four cities and counties nationwide to work with to turn smart growth ideas into better development for Greenville. Efforts include spreading the kind of development happening downtown to its more suburban edges including more sidewalks, buildings closer to the street, smaller parking lots and more landscaping.

Greenville County’s Comprehensive Plan encourages the development of industrial parks so aesthetics, design, screening and land use impacts can be better managed. Plans are being worked on to revise the county Zoning Ordinance to create new residential zoning classifications that permit design innovations such as open space, varying setbacks, cluster development, varying lot sizes, and mixed uses with extensive landscaping. Through incentives, it would also encourage developers to build in the urban area of the



county. Transit goals in the Comprehensive Plan encourage residents to use alternative modes of transportation for travel.

Greenville County Planning Commission, on behalf of the City of Mauldin and the City of Simpsonville, retained Day Wilburn Associates to prepare a Transit Development Plan for the Mauldin-Simpsonville Urbanized Area. Information regarding the results of this study can be found in the Greenville County portion of this document.

### **Spartanburg County**

Spartanburg County's land use efforts include strategies that are represented in the county's comprehensive plan or unified land management ordinance. Some important strategies include:

- Development of a comprehensive urban forestry plan to include local tree ordinances, protection policies of urban open spaces, and landscape ordinances that utilize native plants.
- Revisions of the county's subdivision regulations to include conservation provisions to help not only retain natural resources, but add to the value and marketability of rural residential projects. This will also maintain balance between the rural setting and future growth and development.
- Amending the county's subdivision regulations to promote cluster housing development in rural areas, thereby minimizing land coverage for residential use. Establishing maximum lot size (recommended 1/4 acre) for cluster subdivisions of a certain size, as opposed to minimum lot size, and allocating in perpetuity through lease, trust, common ownership, etc. up to 80 percent of such subdivisions to open, agricultural, or forested use, thus retaining rural, open character.

To address transit needs Spartanburg County is working to provide convenient, coordinated, accessible and affordable transit service under the administration of a single transit agency, controlled by a Joint Transit Commission appointed by city and county government. This includes interfacing the transit system with other transportation modes including highways, airports, rail, intercity bus, school buses, and bikeway/trail systems. Components of this approach include developing alternative funding sources to promote public transit as a low cost alternative to the automobile and as a means of lessening traffic congestion.

To promote bicycle and pedestrian facilities, a governmental committee composed of local officials whose mission is to promote alternative transportation systems in the county has been created. The committee is also responsible for the procurement of funding for the implementation of such facilities. Securing a public and private partnership to oversee the implementation of proposed improvements and promote the use of alternative transportation through educational, promotional and incentive programs is also being addressed.

### **Lexington County**

On January 22, 2005, Lexington County Council received statewide recognition from the

*South Carolina Wildlife Federation* for its landscape ordinance. The Federation's Forestry award was in recognition of leadership and vision through comprehensive urban forestry programs recently implemented. Due to the variety of issues involved in a project of this magnitude, the county sought input from experts in landscaping and urban forestry as well as the public in developing the Ordinance. While the County's Ordinance is directed primarily at commercial development, it actually focuses on six different categories. The most important aspect of the *Lexington County Landscape Ordinance* is that its format enables it to be duplicated in any community regardless of location, political environment, or intensity of development. Air quality benefits of this ordinance are that it will help reduce emissions because of reduced use of gas powered yard equipment and the use of canopy trees in parking lots to cut down on evaporative emissions.

Components of the Lexington County Comprehensive Plan encourage the development of traffic-intensive commercial, industrial and higher density residential land uses near existing major roads, railroads and interstate highways. It discourages low-density residential development near existing major roads and interstate highways and encourages development patterns such that future growth can be effectively served by public transportation. It also provides for safe transportation facilities for bike and pedestrian usage and promotes the compatibility of different land uses as an alternative to completely segregating residential, commercial, industrial, agricultural and other uses from one another. Another effort includes working within the Central Midlands Council of Governments to ensure that the Columbia Area Transportation Plan (COATS) assists in the reversal of the "sprawl" development pattern.

### **Richland County**

Effective July 1, 2005, Richland County began using a vastly updated Land Development Code (LDC) to address a number of issues that citizens have brought to the attention of the county over the years such as transportation, community appearance, conservation, water quality and affordable housing. The central reason for drafting the updated LDC was to revise the county's land development regulations as needed to make certain they accomplish the goals and objectives of the comprehensive plan.

Among its many purposes, the LDC specifies planning requirements that seek to "lessen congestion in the roads." For the first time, site plans for major land development must include a traffic management plan: "An evaluation of the effect of traffic generated by a development on the operation and safety of the adjacent public roads. Such analysis shall include an identification of traffic impact mitigation measures needed to improve the safety, operation, and flow of vehicular and pedestrian movement into and out of the development."

Richland County Council sponsored a neighborhood meeting on April 16, 2005, to share information on planning, design, and development of livable communities. Dr. Chuck Bohl, an internationally recognized expert on this topic is scheduled to speak. Richland County has also contracted with the Palmetto Conservation Foundation (PCF) to address how land use, transportation, parks, and trails can be incorporated into a greenway network that builds on the Three Rivers Greenway and Palmetto Trail and

promote integrating physical activity into daily routines. The primary activities of focus are bicycle/pedestrian transportation, safe routes to school, and community planning. In combination with Bicycle/Pedestrian planning now underway at the Columbia Metropolitan Planning Organization, car commuters will have additional commuter options. PCF has already participated in a successful active living campaign in Spartanburg, South Carolina, which brings, in part, an air quality benefit that Columbia and Richland County want to emulate.

## **8. Other Point Source Reductions**

As noted in the June 2003 EAC Progress Report, Bureau of Air Quality staff met with individual industry representatives in an effort to negotiate emission reductions. The intent was to focus on several large NO<sub>x</sub> emitters, particularly those with few existing NO<sub>x</sub> controls that are impacting potential nonattainment areas, to negotiate reductions through the permitting process or consent agreement. This was done in lieu of developing statewide regulations on existing industrial sources. Meetings with various industry were held on May 1, 2003, June 2, 2003, and June 11, 2003.

Appendix 10 of the December 2004 EAC SIP included copies of the agreements with these facilities. As part of the EAC process, several of the largest existing industrial sources in the Upstate and Midlands areas of South Carolina have voluntarily committed to reduce and/or limit their NO<sub>x</sub> emissions. These negotiations were the direct result of the EAC process as are the NO<sub>x</sub> reductions that will result from them. SCE& G - Wateree in Richland County installed Selective Catalytic Reduction (SCR) on two coal-fired boilers to comply with the NO<sub>x</sub> SIP Call and has agreed to take permit limits on these units as their commitment to the EAC process. International Paper in Richland County agreed to take an annual allowable NO<sub>x</sub> emission reduction of 1000 tons, facility wide.

In addition, Duke Power in Anderson County has committed to install and operate low NO<sub>x</sub> combustion controls on two coal-fired boiler units (controls were installed in 2001 on the other boiler at the facility) and to limit the NO<sub>x</sub> emissions from these units to an emission rate of 0.27lbs/MMBtu. This is a \$7 million investment by Duke Power that will result in approximately 850 tons of NO<sub>x</sub> reduced annually. As part of this process, Transcontinental Gas Pipeline Corporation (Transco), which operates the internal combustion engines at Station 140 in Spartanburg County, began early implementation of the NO<sub>x</sub> emission reductions required by Phase II of EPA's NO<sub>x</sub> SIP Call regulation. In accordance with the federal requirements, Phase II is required to be fully implemented by 2007. As part of the EAC process, Transco performed engine overhauls and engine combustion modifications on 13 engines during the 2005 calendar year so that these NO<sub>x</sub> emission reductions were captured well ahead of the federal timeline. The goal is to have all NO<sub>x</sub> reductions quantified and certified before the end of the 2006 calendar year, allowing Transco to take credit for NO<sub>x</sub> reductions prior to the start of the 2007 Ozone Season. The South Carolina Electric and Gas installed NO<sub>x</sub> reducing technology on some of its coal-fired boilers at the Canadys, McMeekin, and Urquhart plants. All units have NO<sub>x</sub> continuous emission monitors in place. These actions are permanent and quantifiable and were not required by any federal or state regulation. These actions were taken to demonstrate the facility's commitment to the EAC process.

## 9. Palmetto State Clean Fuels Coalition Initiatives

The Palmetto State Clean Fuels Coalition (PSCFC) is part of the Clean Cities program and is one of 88 designated coalitions in the United States. The Department of Energy approved the application for PSCFC's designation in 2003, recognizing the commitment of the stakeholders to building an alternative fuels market in South Carolina. <http://www.palmettocleanfuels.org>

Prior to receiving the official designation, stakeholders were involved in a number of alternative fuel activities. On October 17, 2001 – a station supplying ethanol and biodiesel opened in the Aiken area. The station is privately owned and sells fuels to both the government and the public and was the first of its kind in the United States. In conjunction with the opening, on October 18, 2001 – Governor Hodges signed an Executive Order supporting the use of alternative fuels and requiring state agencies, when feasible to utilize alternative fuels when operating alternative fuel vehicles.

On April 2, 2002, the Department held a ceremony to officially announce the availability of E85 at the 2600 Bull Street location in Columbia. The fueling site consists of a 10,000 gallon E85 tank. The Department spent \$105,000 for modifications to existing tanks and was the first state agency to offer E85 in Columbia to county, federal and state governments.

There are currently 33 publicly accessible E85 refueling infrastructure stations in the Columbia, Greenville, and Aiken areas. Two more stations will come on-line in 2006 in the Rock Hill/Fort Mill area. During 2005, South Carolina opened more publicly accessible E85 refueling sites than the State of Iowa.

A recent survey identified a total of 1,232 alternative fuel vehicles actually operating on alternative fuel in the nine-county PSCFC service area. Of these vehicles, 691 (56.1%) were E-85 flex fuel, 461 (37.4%) were operating on B20 biodiesel, 42 (3.4%) were operating on propane, 20 (1.62%) operating on compressed natural gas, and 18 (1.5%) are electric vehicles. Many of these vehicles are owned by PSCFC stakeholders.

Survey respondents indicated that they planned to buy and operate more AFVs in the next five years. Taken together, these stakeholders will add 2,005 operational AFVs to the road through 2008. This represents an annual increase of approximately 21.5% or roughly 401 vehicles annually.

Other activities involving the PSCFC include:

**Columbia CNG Initiative** - In 2000, the PSCFC worked closely with the Central Midlands Regional Transit Authority (RTA) Board of Directors as they made decisions regarding the fate of Columbia's bus fleet. The Board decided to purchase 7 new compressed natural gas (CNG) transit buses when they replaced SCE&G's aging bus fleet. These buses were delivered in December 2002 and are running successfully on

CNG. They are expected to reduce nitrogen dioxide and hydrocarbon emissions by 6,296 pounds per year over a ten-year period, which will result in a cleaner downtown area.

Because of the RTA's commitment to alternative fuels, the Energy Office worked with others to expand the capacity of Columbia's only CNG refueling station. This station is located on the corner of Flora Street and Assembly Street, right across from the Capital City Bombers baseball stadium. This station refuels not only the buses, but also federal, state and local government fleets. It is also open to the public, and accepts both Visa and Master Card.

**Ethanol Refueling Infrastructure** - In April 2005, six fueling stations in the Columbia and Greenville areas kicked off their sale of ethanol (E85) with E85 for \$.85 events. E85 is the term for motor fuel blends of 85 percent ethanol and 15 percent gasoline and is an alternative fuel as defined by the U.S. Department of Energy. Besides its superior performance characteristics (octane=105), ethanol burns cleaner than gasoline, and it is a completely renewable, domestic, environmentally friendly fuel that enhances the nation's economy and energy independence.

**PSCFC and Stakeholders Receive Funding for Two Special Project Proposals in 2005:**

1. **York Technical College: Ethanol Refueling Infrastructure:** The SCEO received \$25,191 in federal funds with a cost share of \$18,500 for a total project cost of \$43,691 to establish an ethanol (E-85) fueling station in Rock Hill, S.C. to support the use of E-85 in the existing and future fleets of the City of Rock Hill, York County Natural Gas, the City of Clover, Palmetto Clean Fuels Coalition and York Technical College. The E-85 fueling station will be located at the main Rock Hill maintenance facility and will consist of a 12,000 gallon below ground tank converted from an existing unleaded fuel tank. The refueling station will support 59 ethanol flex fuel vehicles currently using gasoline in the fleets of Rock Hill, Palmetto Clean Fuels Coalition, York County Natural Gas Authority, the City of Clover and York Technical College.

2. **PSCFC - Clean Cities Coalition Support - Palmetto State Clean Fuels Coalition:** The SCEO received \$20,000 in federal funds with a cost share of \$27,822 for a total project cost of \$47,822 for a coordinator support grant for the Palmetto State Clean Fuels Coalition (PSCFC). The purpose of this project is to ensure continued coordination and staffing of the PSCFC by the Catawba Regional Council of Governments. Funding will ensure continued momentum in the nine-county PSCFC region for projects, marketing, and increased use of alternative fuel and alternative fuel vehicles. Funding will enable promotion and building of infrastructure to support increasing use of alternative fuels by state and local government in the PSCFC region.

**Biofuels Showcase** - The Palmetto State Clean Fuels Coalition (PSCFC) hosted a Biofuels Showcase on November 18, 2005. This event showcased ethanol and biodiesel and featured a Ride and Drive event where participants had a chance to drive the

alternative fueled vehicles on display. Over the last decade, Clean Cities Coalitions have reported activities that have displaced more than a billion gallons of petroleum in transportation. By implementing projects that make use of alternative fuels, hybrid vehicles, truck idle reduction, fuel blends, and fuel economy improvement, Coalitions have helped build local and regional markets for non-petroleum solutions to our energy challenges. On October 14, 2005, the PSCFC hosted a variety of celebratory events in Rock Hill, Aiken, Columbia and Greenville.

**Billion Gallon Celebration** - Over the last decade, Clean Cities Coalitions have reported activities that have displaced more than a billion gallons of petroleum in transportation. By implementing projects that make use of alternative fuels, hybrid vehicles, truck idle reduction, fuel blends, and fuel economy improvements, Coalitions have helped build local and regional markets for non-petroleum solutions to our energy challenges. On October 14, 2005, the Palmetto State Clean Fuels Coalition hosted a variety of celebratory events in Rock Hill, Aiken, Columbia and Greenville.

#### **Southeastern Alternative Fuels Task Force Workshop**

Department staff along with Palmetto Cities Clean Fuel Coalition coordinator, Wendy Bell and South Carolina Energy Office, Chantal Fryer participated in and helped to support the planning and implementation of this workshop held in Tennessee, June 6-7, 2005. Website for the SEAFTF is: <http://www.sealtfuels.org/>. Evaluation results for this workshop is available.

As of the December 2005 Progress Report, there were 23 public E85 refueling sites in South Carolina with 4 additional stations planned with the next 6 months. In addition to the E-85 refueling sties located at the Department's Bull Street office in Columbia, there were 5 other refueling sites that are not open to the public (2 in Aiken County at the Savannah River Site; 1 in Berkeley County at Santee Cooper; and 2 in Horry County). In 2006, the University of South Carolina and the City of Rock Hill each have plans to install an E85 refueling site; bringing the total number of non-public refueling sites to 8 during 2006. In addition to E85, there were 3 biodiesel public sites in South Carolina. B2 at Spinx and 2 United energy Sites.

As of June 2006, there were 33 public E85 refueling sites in South Carolina. In addition, there are 14 public biodiesel (B20) refueling sites in South Carolina.

## **10. Tree City USA**

Tree City USA encourages municipalities and areas to have strong urban forestry programs. In the fall of 2005, the Bureau of Air Quality sent an electronic mail message to all 45 EAC areas in South Carolina asking the counties to encourage municipalities within their county to help participate in this program that can benefit air quality.

Currently there are 39 designated areas in South Carolina, an additional 2 from the December 2005 Progress Report.



## **11. Energy Efficiency**

### **a. ENERGY STAR - Energy Benchmarking/Portfolio Manager Report January 2005-September 2005**

The Department received \$5,000 in additional Section 105 grant monies to promote the ENERGY STAR Energy Benchmarking program in our area. Below is a summary of the Bureau of Air Quality's (BAQ) efforts in promoting this program through September of 2005.

Efforts were made on two fronts to promote Energy Star. The first effort was to install Energy Star with the BAQ and then expand the program throughout the rest of the Department. The second front was to involve other State Agencies and local governments through outreach efforts to try to get them to utilize Energy Star.

#### **South Carolina Department of Health and Environmental Control**

The BAQ already had 80% of its computers installed with monitor power management enabled. However, all of the monitors had longer shutdown times than the Energy Star default of 10 minutes. Therefore, the BAQ saved five minutes on 25% of the monitors, 15 minutes on 45% of the monitors, and over 20 minutes on 30% of the monitors that had power management engaged.

The numbers calculated from EPA's calculator program are below:

#### **RESULTS--Savings Per Year**

<b>Energy</b>	
Current Use	25,216 kWh
Future Use	18,127 kWh
Savings	7,089 kWh
<b>Dollars</b>	
Current Cost	\$2,169
Future Cost	\$1,559
Savings	\$610
<b>Percent</b>	
Savings	28%

Since the BAQ's successful installation of Energy Star, other Bureau's within the Department are now starting the process of installing Energy Star. Once the Information Technology (IT) staff has completed the necessary installation on the respective servers, the Bureau of Water and the Bureau of Land and Waste Management will be joining the Energy Star team. With the addition of these two Bureaus, the number of computer monitors will increase from around 150 to over 500.

## **Other State Agencies and Local Governments**

During the reporting period BAQ staff met with staff at other State Agencies to provide them information about Energy Star. Staff met with the South Carolina Energy Office, the South Carolina Department of Transportation, and the South Carolina Department of Education. At least one Agency (South Carolina Energy Office) has expressed an interest in implementing Energy Star and BAQ staff will be working with them to do so.

As part of the EAC process Energy Star is being used as an example of how local governments can save money, and also help reduce air pollution. Staff have provided flyers and used PowerPoint presentation to demonstrate local government contacts the benefits of Energy Star and how to implement the program.

## **Plans for the upcoming year**

BAQ staff plan to finish installing Energy Star at the Bureau of Water and the Bureau of Land and Waste Management. We also plan on expanding Energy Star to the rest of the Department. Along with the installation to the South Carolina Energy Office, staff plans to revisit the Energy Star issue with the South Carolina Department of Transportation and the South Carolina Department of Education in hopes of convincing them to install Energy Star.

We will also continue using outreach materials and presentations to inform counties and local governments about the advantages of Energy Star and assist them with implementing the program.

### **b. SC Energy Office**

The SC Energy Office released an Annual Report for 2005. Four items addressed in the report include:

1. The SC Energy Office promotes energy efficiency in government agencies and public schools by encouraging them to measure their energy use, analyze their building envelopes and mechanical systems, incorporate energy improvements into their master plans, and implement energy-saving measures. The SC Energy Office also provides grants and loans to encourage installation of energy efficient equipment and capital improvements in state agencies.
2. The SC Energy Office promotes the use of renewable energies and sustainable development practices throughout the state to offset and replace traditional methods of energy generation and consumption and to mitigate environmental degradation and the loss of economic investment. Renewable technologies such as solar, biomass, wind, hydrogen, and geothermal energy sources can help South Carolina depend less and spend less on imported energy while improving the

state's environment. For a description of projects such as landfill gas to energy, solar technology, biomass renewable energy, green power and hydrogen.

3. Transportation – This section discusses the SC Energy Office role in Palmetto State Clean Fuels Coalition; Alternative Fuel Refueling Infrastructure; Alternative Fuel Vehicles; Take a Break from the Exhaust; and Truckstop Electrification.

4. Public Information – This section discusses the ways in which the SC Energy Office reaches a variety of audiences in the state.

### **c. Energy Wise**

Pilot program sponsored by the Office of Economic Opportunity (OEO) on behalf of the South Carolina Governor's Office. Energy Wise is an adult energy education initiative coupled with low-cost energy efficiency measures and agency staff training. All program participants received energy education from a local community action agency as well as a kit of energy efficiency measures to install in their homes. Data was collected and analyzed to determine energy and cost savings generated by participants and the program. [www.state.sc.us/energy/PDFs/AR\\_V\\_3.doc](http://www.state.sc.us/energy/PDFs/AR_V_3.doc)

### **e. Michelin Energy Reductions in Spartanburg, SC**

Michelin Spartanburg Manufacturing in Spartanburg, SC plans to reduce water usage by four million gallons and its energy use by more than 40,000MM Btu's.

South Carolina State Measures							
A. Control Measure under Consideration	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information
<b>I. Outreach and Education</b>							
a. Ozone forecast/outreach,education	To make South Carolinians aware of daily air quality forecasts for ozone season to alert sensitive groups and increase awareness to motivate more people towards lifestyle changes, especially on ozone action days.	Beginning with the 2006 ground-level ozone forecast season, the Department and the BAQ began participation EnviroFlash, sponsored by the EPA with State and local air quality agencies. EnviroFlash provides important air quality information such as forecasts and action day notifications via email or pager notification. The email includes the same local air quality forecast information which is coordinated through the news media, like television and radio.	July 2004	directionally sound	directionally sound	n/a	
b. Developed Outreach Materials	Gas Can Exchange	Anderson County organized and planned its own gas can exchange (09/10/2005) with some limited assistance from SCDHEC/BAQ staff. 200 new, environment friendly gas cans were distributed, and 79 used gas cans collected.	9/10/2005	355 lbs/year	n/a	n/a	Reductions reflected in Anderson County Progress Report for December 2005
c. Breathe Better @School Program	Program seeking reductions in air pollution around schools.	Working with a middle school in the Midlands area of Columbia, SCDHEC/BAQ staff helped initiate education materials to support no idling for school buses and car pool drivers. The school developed and implemented a no-idling policy for the grounds. This school was recognized by the Agency's "Champions of the Environment" program. Information is available at <a href="http://greenstepschools.com/page1.html">http://greenstepschools.com/page1.html</a>	2005	directionally sound	directionally sound	n/a	Information is available at <a href="http://greenstepschools.com/page1.html">http://greenstepschools.com/page1.html</a>
d. SC Educators trained with Action for a Cleaner Tomorrow	Environmental Education training for teachers	FY 05 saw 28 educators trained	yearly training opportunities	directionally sound	directionally sound	n/a	<a href="http://www.scdhec.net/recycle/html/action.html">www.scdhec.net/recycle/html/action.html</a>

e. Car Care Awareness Month Project	Increase the target audience's awareness about the importance of car maintenance in preserving good air quality	The Department and Richland and Lexington counties organized a vehicle maintenance check event in April. The State Museum, Ben Satcher Ford and Pope Davis Tires helped sponsor this free event on April 1, from 10 a.m. until 2 p.m. at the State Museum on Gervais Street. A team of certified technicians made suggestions for improving vehicle safety and gas mileage.	2006	n/a	n/a		
f. Earth Week 2006 Activities	Governor Mark Sanford proclaimed April 16 - 22, 2006 as Earth Week in South Carolina.	Earth Day 2006 included DHEC celebrating Earth Day with participating schools all around the state with help from volunteer staff.	April 2004	directionally sound	directionally sound		
<b>2. Commuting Reduction Programs</b>							
a. Take A Break From The Exhaust (TABFTE)	<p>Computer based Commuter program that encourages reductions by using a point system</p> <p>2005 Ozone Season Reductions: 286,889 miles reduced 1,076 pounds of VOC's reduced 684 pounds of Nox reduced</p>	<p>2006 Participants</p> <p>Bureau of Air Quality Bureau of Water Bureau of Land and Waste Management South Carolina Energy Office Wisconsin Department of Natural Resources Lexington County Government Central Midlands Council of Governments Winthrop University - York County York Technical College Bowater - York County Citi Group - York County Springs Industries - York County</p>	Yearly April - September	1,076 pounds	684 pounds	n/a	<a href="http://www.scdhec.gov/takeabreak/login.asp">www.scdhec.gov/takeabreak/login.asp</a>  Total of 286,889 miles reduced

b. SmartRide Program	SC DOT sponsored program giving commuters mass transit service to/from Columbia area. During the 2005 Ozone Season, to promote SmartRide and to encourage reductions of ozone precursors, free rides were offered for those days designated as Ozone Action Days. The BAQ helped promote this effort by providing posters and public service announcements. In addition, the BAQ provided \$500.00 to help off-set the cost. During the 2006 Ozone Season, free rides on Ozone Action Days will again be offered.	<p>Passenger Boardings: Total Camden – Columbia: November 2005 – May 2006 7,514 boardings</p> <p>Emissions Reductions (Kershaw, and Richland): 684 pounds NOx 943 pounds VOC</p> <p>During the 2006 Ozone Season, free rides on Ozone Action Days will again be offered.</p>	2004	684 lbs.	943 lbs.	n/a	<a href="http://www.scdot.org/getting/SmartRide/smartride.shtml">www.scdot.org/getting/SmartRide/smartride.shtml</a>
c. SIGIS carpool matching	The Department initiated a web-based, map based carpooling program in December 2005. The program facilitates ridesharing opportunities throughout the state by allowing interested employees to map their commute trip information and view the trips entered by other employees.	The program has undergone some recent refinements and a second agency-wide email notification about the program was sent on June 27, 2006.	December 19, 2005	directionally sound	directionally sound	n/a	The program is available to 4,987 Department employees in eight environmental quality control offices, eight regional public health offices, four Ocean and Coastal Resources Management Offices, and eight office locations in Columbia. At this time there are approximately forty-five participants.
d. Best Workplace for Commuters	Bureau of Air Quality designated as a "Best Workplace for Commuters" February 3, 2005. SCDHEC - Bureau of Air Quality currently holds the only designation in South Carolina	Completed Bureau continues to promote this program to EAC areas and within the Department.	February 3, 2005	directionally sound	directionally sound	n/a	<a href="http://www.scdhec.gov/eqc/baq/html/bwc.htm">www.scdhec.gov/eqc/baq/html/bwc.htm</a> <a href="http://www.commuterchoice.gov">www.commuterchoice.gov</a>
e. Audioconferencing	Opportunity to hold meetings through audioconferencing or teleconferencing. SCDHEC offers employees 3 choices based on the number of participants (up to 6, up to 30, or up to 144 lines)	SCDHEC employees as well as other state agency employees were faced with travel restrictions in the late summer months of 2005. Employees were notified via e-mail of the audioconferencing capability.	employees notified in 2005	directionally sound	directionally sound	n/a	

<b>3. Ground Level Ozone Awareness Week Proclaimed</b>	To increase awareness of ozone pollution on the lifestyle changes needed to see more reductions in ozone pollution levels	2006 - Governor Mark Sanford proclaimed May 1 - May 7, 2006 as Ozone Awareness Week. A survey tool for the 2006 Ozone Season was developed and sent to EAC contacts to: 1) assess their current initiatives, 2) determine their needs for education/information resources and activities and 3) identify how BAQ staff could best support their efforts. Contact was made by staff with all responders via email and/or telephone for follow-through.	2000 and continues yearly	directionally sound	directionally sound	n/a	See comments #7 and #8
<b>4. Regulatory Initiatives</b>							
a. Open Burning-ban household trash burning	Reduce pollution from unnecessary burning	April 14, 2005, DHEC issued a news release reminding citizens in SC of the revised regulations. The revision to the regulation was made in 2004 as a part of the EAC process to improve air quality. Additional news releases were sent out during the Fall to encourage citizens to use alternatives for disposing of yard trash.	2005	698 TPY	147 TPY	n/a	Comments #6, and 7.  See the December 2005 Progress Report Document for detailed information.
b. SC NOx Control Reg - new sources	Reduce new sources of Oxides of Nitrogen, a precursor to Ozone pollution	on-going	2005	n/a	2913 TPY	n/a	Comments #6, and 7  See the December 2005 Progress Report Document for detailed information.
<b>5. Assist local areas in determining emission reductions</b>	The Department supports local solutions to local problems.	SC will continue to work with EPA to assist local areas in determining the emission reduction strategies that will assist the area in achieving emission reductions needed for maintaining the 8-hour ozone standard within their respective area.	2003	directionally sound	directionally sound	n/a	See comments 1-8

<b>6. Clean Air Initiatives for Gov Entities</b>	Provide forum for Government Entities to meet and seek reductions in air pollution.	The utilization of the TABFTE continued to grow in 2006, with Winthrop University (York County), Central Midlands Council of Governments and York Technical College, Lexington County, Bowater, CitiGroup and Springs Industries. The SCDHEC/BAQ continues the partnership with the SCDOT and the Energy Office to promote ridership on the SmartRide Alternative Transportation project during Ground-level Ozone Season.	2003	directionally sound	directionally sound	n/a	Comment #7, CAIGE website <a href="http://www.scdhec.gov/eqc/baq/html/eap_caige.html">www.scdhec.gov/eqc/baq/html/eap_caige.html</a>
<b>7. Smart Highways</b>	Provide improvement in air quality by means of transportation planning	A checklist was developed to be used in transportation planning. The checklist will serve as an informational guideline to be used in reviewing Long Range Transportation Plans and Transportation Improvement Programs for adequacy of their documentation and will be used during long range transportation plan updates as required by 23 CFR 450.322.	2005	6,922 TPY	11,025 TPY	n/a	Reductions reflect difference between 2007 and 2002 for deferred nonattainment areas. Comment #6 A copy of the Smart Highways Checklist is attached in Appendix 12 of the December 2004 EAC SIP.
<b>8. Other Point Source Reductions</b>							
a. NOx reduction-large facilities	Reduce Oxides of Nitrogen As a part of their commitment to the EAC process, four facilities are voluntarily revising their permits to incorporate the following requirements as federally enforceable permit limits. These actions are permanent and quantifiable and would not have occurred had it not been for the EAC process. (See Executive Summary, Section D.4. and Appendix 10 of the December 2004 EAC SIP.)	1. Transco Pipeline - (Spartanburg County) - IC Engine Facility will begin early implementation, fully implemented by December 2005, of NOx emission reductions required by the Phase II of NOx SIP Call.	April 2005	n/a	2,561 tons	n/a	Comments #6, and 7



		2. International Paper - Eastover (Richland County) agreed to take a 1,000-tpy reduction in its permit limit.	April 2005	n/a	1,000 tons allowable NOx limit	n/a	Comments #6, and 7
		3. Duke Power - Lee Steam Station (Anderson County) – will install and operate advanced low NOx combustion controls on the smaller two coal-fired boilers (Units 1 and 2). The NOx limits on these units will be incorporated in the Title V permits and incorporated into the SIP. This is a \$7 million investment that will limit NOx emissions to a rate of 0.27lbs/MMBtu.	April 2005	n/a	850 tons	n/a	Comments #6, and 7
		4. SCE&G Wateree - (Richland County) agreed to take Title V permit limits on coil fired boilers subject to the NOx Call Requirements.	April 2005	n/a	40% reduction	n/a	Comments #6, and 7
<b>9. Palmetto State Clean Fuels Coalition Initiatives</b>							
a. Biofuels Showcase	The Palmetto State Clean Fuels Coalition hosted a Biofuels Showcase on Friday, November 18, 2005. This event showcased ethanol and biodiesel. Invited speakers were from the National Ethanol Vehicle Coalition, National Biodiesel Board, and Georgia Power. The event also featured a Ride and Drive Event where participants had a chance to drive the alternative fuel vehicles (AFV's) on display.	Biofuels Showcase was held on November 18, 2005.	Nov. 18, 2005	directionally sound	directionally sound	n/a	<a href="http://www.palmettocleanfuels.org/">www.palmettocleanfuels.org/</a>
b. Billion Gallon Celebration	Over the last decade, Clean Cities Coalitions have reported activities that have displaced more than a billion gallons of petroleum in transportation. By implementing projects that make use of alternative fuels, hybrid vehicles, truck idle reduction, fuel blends, and fuel economy improvements, Coalitions have helped build local and regional markets for non-petroleum solutions to our energy challenges.	On October 14, 2005, the Palmetto State Clean Fuels Coalition hosted a variety of celebratory events in Rock Hill, Aiken, Columbia and Greenville.	Oct. 14, 2005	directionally sound	directionally sound	n/a	<a href="http://www.palmettocleanfuels.org/">www.palmettocleanfuels.org/</a>

c. Ethanol Refueling Infrastructure	There are currently 20 publicly accessible E85 refueling infrastructure stations in the Columbia, Greenville, and Aiken areas	Currently 33 public E85 refueling sites in South Carolina · In addition to E85, There are currently 14 biodiesel public sites in South Carolina.	October, 2001	directionally sound	directionally sound	n/a	See comments 1-8 <a href="http://www.palmettocleanfuels.org/">www.palmettocleanfuels.org/</a>
Southeastern Alternative Fuels Task Force Workshop	BAQ and Wendy Bell/Chantal Fryer participated in and helped to support the planning and implementation of this workshop held in Tennessee, June 6-7, 2005.	Website for the SEAFTF is: <a href="http://www.sealtfuels.org/">http://www.sealtfuels.org/</a> . Evaluation results for this workshop is available.	June 6-7, 2005	directionally sound	directionally sound	n/a	
<b>10. Tree City USA</b>	Tree City USA encourages municipalities and areas to have strong urban forestry programs. BAQ sent an email to all 45 EAC areas in SC asking the counties to encourage municipalities within their county to help participate in this program that can benefit air quality.	Currently there are 39 designated areas in SC - this is an increase of 2 from the December 2005 Progress Report	2005	directionally sound	directionally sound	n/a	<a href="http://www.arborday.org/programs/treecity/map.cfm">www.arborday.org/programs/treecity/map.cfm</a>
<b>11. Energy Efficiency</b>							
a. Energy Star	SCDHEC BAQ experienced an estimated 28% energy savings in 2005 using the computer monitor power management software.	Completed. BAQ Information Technology staff have completed the necessary installation on the respective servers, and the Bureau of Water and Bureau of Land & Waste Management will be participating. This will increase the number of monitors from 150 to over 500.	January 2005 - September 2005	directionally sound	directionally sound	SCDHEC received \$5,000 in additional Section 105 grant monies to promote the ENERGY STAR Energy Benchmarking program.	During the reporting period, SCDHEC/BAQ staff met with other state agencies to provide information about Energy Star. These agencies include the SC Energy Office, SC Department of Transportation, and the SC Department of Education. Staff also provided flyers and PowerPoint presentations to EAC counties to demonstrate the benefits of Energy Star to local governments. Future plans include installing Energy Star in other areas of SCDHEC and encourage other state agencies to install Energy Star. Outreach materials and presentations will continue to be made available.

b. SC Energy Office	<p>The SC Energy Office released an Annual Report for 2005. Four items addressed in the report include:</p> <ol style="list-style-type: none"> <li>1. The SC Energy Office promotes energy efficiency in government agencies and public schools</li> <li>2. The SC Energy Office promotes the use of renewable energies and sustainable development practices throughout the state</li> <li>3. Transportation – This section discusses the SC Energy Office role in Palmetto State Clean Fuels Coalition; Alternative Fuel Refueling Infrastructure; Alternative Fuel Vehicles; Take a Break from the Exhaust; and Truckstop Electrification.</li> <li>4. Public Information – This section discusses the ways in which the SC Energy Office reaches a variety of audiences in the state.</li> </ol>		2005	directionally sound	directionally sound	n/a	For additional information.... <a href="http://www.state.sc.us/energy/">www.state.sc.us/energy/</a>
c. Energy Wise	<p>Pilot program sponsored by the Office of Economic Opportunity (OEO) on behalf of the South Carolina Governor's Office. Energy Wise is an adult energy education initiative coupled with low-cost energy efficiency measures and agency staff training. All program participants received energy education from a local community action agency as well as a kit of energy efficiency measures to install in their homes. Data was collected and analyzed to determine energy and cost savings generated by participants and the program as a whole.</p> <p><a href="http://www.state.sc.us/energy/PDFs/AR_V_3.doc">www.state.sc.us/energy/PDFs/AR_V_3.doc</a></p>		2005	directionally sound	directionally sound	n/a	For additional information.... <a href="http://www.state.sc.us/energy/">www.state.sc.us/energy/</a>
d. Michelin Energy Reductions in Spartanburg, SC	<p>Michelin Spartanburg Manufacturing in Spartanburg, SC plans to reduce water usage by four million gallons and its energy use by more than 40,000MM Btu's.</p>		2005	directionally sound	directionally sound	n/a	
<b>12. School Bus Retrofit</b>							
a. Santee Cooper SEP	<p>Provide installation and maintenance for approximately 157 diesel particulate filters for school buses in the non-attainment and deferred counties</p>	<p>Requests for proposals have been submitted but uncertainty of availability of ULSD will delay the project until June 2007.</p>	2006	2669 lbs/yr	n/a	\$1,000,000.00	

b. Weyerhseuser and Duke Energy Project	Provide installation and maintenance for approximately 10 diesel oxidation catalysts and crankcase filtration systems for school buses in Marlboro and Oconee counties.	Application and implementation is delayed until January 2006 pending announcements of the CSBUSA grant recipients.	2006	n/a		\$18,000.00	
c. Clean School Bus USA Grant	The Department of Education has been awarded a Clean School Bus USA Grant for \$499,099 to retrofit some buses in South Carolina with diesel oxidation catalysts and crankcase filters, replace some older buses and conduct a biodiesel pilot and an idle-reduction device pilot. State education superintendent Inez Tenenbaum signed an order on June 20, 2006 to buy 630 new school buses with roughly \$36 million appropriated by the Legislature. These buses should be on South Carolina roads by the end of the year. These new buses will replace vehicles from 1984 and 1985 which are not fuel efficient and produce higher levels of polluted emissions than more modern vehicles. The benefits from these funding sources will be distributed throughout the state.		June 2006	n/a		\$499,099.00	
<p><b>Comments:</b> Modeling for 2007, shows attainment of the 8-hour Ozone standard without including measures beyond national and regional measures already finalized. The years, 2012 and 2017 also show attainment. In accordance with the Protocol for Early Action Compacts, after all Federal and State controls were accounted for in the modeling, it was determined that local controls were not necessary to demonstrate attainment of the 8-hour ozone standard. Measures were submitted by the local areas to show their continued support and commitment to the EAC process. (second) this activity is directionally sound and should provide air quality benefits and in some cases measurable results. The progress toward implementing this activity and the benefits derived will be documented as a part of the ongoing reporting requirements.</p> <p>2. December 2003 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac.html">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac.html</a> - additional information provided by the county to include "findings", "advantages/disadvantages", "recommendations", "costs", etc....</p> <p>3. March 2004 - Local Early Action Plan - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0304.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0304.asp</a></p> <p>4. June 2004 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0604.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0604.asp</a></p> <p>5. December 2004 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_1204.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_1204.asp</a></p> <p>6. December 2004 - SC EAC SIP - Including Appendix 8 (Local Early Action Plans and the Air Quality Awareness and Improvement Policy) and Appendix 16 (County Level Emission Reductions and Descriptions for the Ozone EAC Areas)</p> <p>7. April 20, 2005 - Correspondence to Mr. Palmer including clarifying supplemental information to the EAC SIP submittal of December 2004. - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_sip.html">http://www.scdhec.gov/eqc/baq/html/eap_sip.html</a></p> <p>8. June 2005 - Progress Report - See - <a href="http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0605.asp">http://www.scdhec.gov/eqc/baq/html/eap_dpr_eac_0605.asp</a></p>							